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## ORIGINAL ARTICLES.

### *SOME FACTS BEARING ON THE CONDITION AND SERVICEABLENESS OF THE STUMP AFTER AMPUTATIONS IN THE LOWER EXTREMITY AT DIFFERENT POINTS AND BY VARIOUS METHODS.<sup>1</sup>*

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DURING the latter years of the civil war of the United States I was one of the surgeons to a military hospital located in the city of New York, to which were sent large numbers of soldiers requiring artificial limbs. These cases were individually studied with great care, and full records were made of all of the useful facts connected with them. Many of the deductions then made from these facts do not now have the force which they then had, owing to the influence of antiseptic methods on the results of the treatment of amputation-wounds. There were some features, however, of the investigation then made of a more permanent value, and which may prove instructive to the members of this section. It is in that view that they are brought forward in this paper.

#### I. INFLUENCE OF THE PLACE OF AMPUTATION UPON THE AMOUNT OF ATROPHY OF THE STUMP.

Among the final results of amputations, atrophy of the stump must be regarded as of the first consideration. Next in value to a firm and durable covering to the stump is a well-nourished extremity. If the stump undergo progressive atrophy, the artificial limb requires much more care to maintain its adaptation. The constant shrinkage of the extremity renders the appliance loose, and hence it requires readjustment by continuous padding of the socket. This padding of the socket is not required when the limb maintains its full dimensions.

The accompanying tables enable us to determine how far the method of operating and the point of the limb at which the amputation is performed influence the subsequent nourishment of the stump. The measurements were made when the stump was healed and prepared for the final adjustment of the artificial limb. The first or proximal measurement was made in the thigh at the highest point where the circumference could be taken, and in the leg immediately

below the knee. The second, or distal measurement, was made directly around the extremity of the stump, at a point where the margins of the flap begin to incline toward the cicatrix. The figures entered in the tables under the head "atrophy," express the difference in inches and fractions of an inch between the measurement at the points indicated on the mutilated and uninjured limb.

COMPARATIVE AMOUNT OF ATROPHY OF STUMPS IN THE UPPER MIDDLE AND LOWER THIRDS OF THE THIGH AND LEG, IN THE AGGREGATE OF 430 CASES.  
(In inches and fractions of inches.)

Limb.	Upper Third.		Middle Third.		Lower Third.	
	Proximal.	Distal.	Proximal.	Distal.	Proximal.	Distal.
Thigh	0.45	1.05	1.56	1.70	1.34	2.08
Leg	0.97	1.70	0.71	1.42	0.57	2.26

It must be borne in mind that the proximal measurements in the thigh are all made at the same point; and the same is true of the leg. It would appear from this table that the point of amputation exercises a very marked influence upon the degree of atrophy of the stump, both in the thigh and leg. In general, the amount of atrophy progressively increases as we recede from the trunk, an exception, however, being noticed in the middle third of both the leg and thigh, which we shall presently notice. In the thigh the proximal atrophy is least in amputations in the upper third, and greatest in amputations in the middle third. In amputations in the lower third of the thigh the proximal atrophy is slightly less than in those performed in the middle third, but still it is three times as great as after those in the upper third. This fact proves a progressive proximal atrophy as the point of amputation in the thigh recedes from the trunk. In the leg this rule is reversed, and the proximal atrophy diminishes as the point of amputation recedes. And this atrophy diminishes in regular order, being least in amputations in the lower third of the leg.

It must not be supposed that the proximal atrophy is influenced by the amount of inflammatory thickening subsequent to the operation, for in that case the degree of atrophy would in general depend upon the proximity of the amputation to the point of measurement. But this is by no means the case. Amputations in the middle third of the thigh, near

<sup>1</sup> Read before the Section on Military Surgery of the Pan-American Medical Congress, September 7, 1893.

the point of measurement, are followed by a greater amount of atrophy than those in the lower third, remote from that point; while in the leg the largest amount of atrophy is in amputations near, and the least in amputations remote from, the point of measurement.

The distal atrophy, or that which occurs at the extremity of the stump, has in the thigh a progressive increase as we proceed from the trunk, being about twice as great in the lower as in the upper third. In the leg, on the contrary, the least distal atrophy occurs in the middle third, while that of the lower extremity is not so great, compared with that of the upper extremity, as was found existing between the upper and lower thirds of the thigh.

Comparing the atrophy of the stumps in thigh and leg amputations, we notice that the proximal atrophy is greater in amputations in the upper third of the leg than in the same region of the thigh, while in the middle third it is more than twice as great in the thigh as in the leg, and in the lower third the excess of atrophy is proportionately greater in the thigh than in the leg. The distal atrophy varies very markedly as follows, namely: In the upper third it is greater in the leg; in the middle third it is greater in the thigh; and in the lower third it is again greater in the leg.

These facts may be stated in general terms as follows:

1. In the thigh, the farther amputation is performed from the trunk the greater will be the atrophy of the entire stump.

2. In the leg, the farther amputation is performed from the trunk the greater will be the atrophy of the extremity of the stump and the less the atrophy of the body of the stump.

## 2. INFLUENCE OF THE METHOD OF AMPUTATION UPON THE ATROPHY OF THE STUMP.

We next proceed to inquire as to the influence of different methods of amputation upon the nourishment of the stump.

The accompanying table contains a distribution of the several methods of amputation in the thigh and leg, with a computation of the average amount of atrophy following each.

This table illustrates in a very striking manner the influence of the various methods of forming the covering of the stump upon the nourishment of its cicatricial tissue. The difference in the amount of atrophy of the distal extremity evidently depends upon the extent to which the arterial supply has been sacrificed. In the thigh the arteries which are distributed to the muscles arise principally, in the upper third, from the femoral branches immediately below Poupert's ligament, and in the middle and lower thirds from the profunda.

## COMPARATIVE AMOUNT OF ATROPHY OF STUMPS AFTER AMPUTATION BY VARIOUS METHODS IN THE UPPER, MIDDLE, AND LOWER THIRDS OF THE THIGH AND LEG.

(In inches and fractions of an inch.)

Method.	Upper Third		Middle Third		Lower Third	
	Proximal.	Distal.	Proximal.	Distal.	Proximal.	Distal.
Thigh. (Total number of stumps, 157.)						
Circular . . . . .	0.7	0.7	1.4	1.9	1.6	2.5
Antero-posterior flaps . .	0.2	1.4	1.1	1.6	1.6	2.4
Lateral flaps . . . . .	...	...	1.8	1.8	1.6	2.3
Anterior flap . . . . .	...	...	2.5	2.2	1.3	2.4
Rectangular flap . . . . .	...	...	1.0	0.0	2.0	2.8
Skin-flaps and cir. muscles	...	...	...	...	0.6	1.5
Posterior flap . . . . .	...	...	...	...	0.7	0.7
Leg. (Total number of stumps, 287.)						
Circular . . . . .	1.1	2.5	1.0	2.3	0.5	2.3
Antero-posterior flaps . .	1.1	1.3	0.4	1.1	0.1	2.7
Posterior flap . . . . .	1.3	1.1	0.5	2.2	1.0	2.6
Lateral flaps . . . . .	0.4	2.9	1.0	1.0	0.7	2.6
Skin-flaps and cir. muscles	...	...	...	...	0.5	1.1

In the upper third of the thigh, therefore, a circular amputation would divide the branches of the femoral at a higher point than an antero-posterior flap—in which the posterior flap is usually longer than the anterior—and hence the atrophy would be greater in a stump formed by a circular than in one formed by an antero-posterior flap. The same rule would apply to these operations in other parts of the thigh, though perhaps not so markedly.

The method of operation by lateral flaps does not differ materially, in respect to the degree of atrophy, from the circular, and the results of the two are seen to be very similar.

The method of operation by making an anterior and rectangular flap differs in this important respect from the preceding methods, namely, that the flap is made wholly from the anterior part of the limb, while the tissues are completely divided to the bone in a perpendicular direction on the posterior aspect of the limb. By these methods the principal covering of the stump is poorly supplied with nourishment, and hence atrophy would be more likely to occur. This is seen to be the case especially in the anterior-flap method in the middle third and the rectangular flap in the lower third.

The methods which give the least atrophy of the stump, both in its proximal and distal portions, are the skin-flaps and circular of the muscles and the posterior flap. It is not difficult to understand why the posterior-flap method gives results so favorable; it leaves quite intact the full vascular supply to the entire covering of the stump. In this respect it might well be regarded as the best method of operation in the thigh; but these advantages are so

counterbalanced by the tendency of the flap to retain pus, its heavy and unsuitable position for transportation, etc., that it has but few advocates. The method by skin-flaps and circular of the muscles gives results nearly as favorable as the posterior flap, and much more favorable than any other of the preceding methods. It is greatly preferable to the posterior-flap method, both on account of the facility of drainage and the neat apposition and lightness of the flaps, thus adapting it to transportation.

The influence of the various methods of operation upon the nourishment of the stump is not so well marked in the leg as in the thigh. This is unquestionably due to the peculiarity of the arterial distribution. The larger trunks are numerous and are deeply situated in immediate relations with the bones. They are not, therefore, liable to division until the operation is about to be completed. There would, therefore, be but little difference among these operations as regards the vascular supply of the flaps, except so far as the extent of the flap should modify the ultimate distribution of arteries. A long flap would necessarily have less supply than a short flap, and would be more liable to immediate death and future atrophy. Of the different methods it will be noticed that the skin-flaps and circular of the muscles give the least atrophy in the leg, as well as in the thigh.

### 3. COMPARATIVE VALUE OF STUMPS IN AMPUTATIONS IN THE LOWER THIRD OF THE LEG AND AT THE ANKLE-JOINT.

It must be observed that amputation at the ankle-joint is always an alternative operation. It is selected in preference to an amputation at a point higher up on the limb. It should also be added that it is an operation of expediency. It is not a *dernier ressort*. If it fails of success the surgeon may still, with rare exceptions, perform the alternative amputation through the leg, with the prospect of as favorable results as when the latter is the first operation.

In determining the value of ankle-joint amputations, therefore, the following questions naturally arise for our consideration:

The comparative serviceableness of the resulting stump depends upon—

(a) The ability for unaided locomotion on the stump.

(b) The adaptation of the stump for an artificial limb.

(a) *As regards unaided locomotion on the stump.*—Ankle-joint amputations differ from amputations in the leg in this essential particular, namely: in the former the support is taken directly upon the extremity of the stump, and in the latter upon the

sides of the limb. In model stumps of each class it will be found that the one which takes direct support upon the extremity is not only capable of enduring a much larger degree of service, but the person suffers far less inconvenience. Direct pressure upon the heel-flap may be endured as long in Syme's stump as similar pressure upon the natural heel. And the same is true of stumps following Pirogoff's method. Patients with these stumps have frequently been known to walk successive days twenty and thirty miles with only the simple covering or protection of the heel of a common shoe or boot. These are by no means exceptional cases. Surgeons who have been accustomed to meet with the results of this operation most frequently uniformly testify to the ease with which patients betake themselves to the stump with only such covering as they can rudely adjust. Of the stumps left by Syme's and Pirogoff's operation, the latter has the greater length, and this requires less compensation.

Amputations through the leg, at whatever point and however skilfully performed, never furnish stumps which take direct support.<sup>1</sup> The limb is useless for locomotion by any simple means of compensation; it is only when an artificial limb is accurately and skilfully adjusted that it serves the purpose of even simple progression.

Again, in amputation at the ankle-joint the patient retains power over the muscles of the calf, which are essential to the act of running. It is extremely rare that a patient who has suffered amputation of the leg can make even the pretence of running upon his artificial limb. The muscles, especially of the calf, have shrunk from disuse, and progressive, permanent atrophy of the parts below the knee ensues. In ankle-joint amputations, however, the tendons of all the muscles employed in locomotion retain their former or acquire new attachments, and are immediately and constantly exercised in the movements of the limb. It is true that this movement of the muscles is more limited than in the normal limb, but it is, nevertheless, sufficiently great to preserve much of their activity, and consequently their nutrition is but partially impaired. The importance of preserving the functions of the muscles of the leg is seen in the perfection of gait which persons with ankle-joint amputations soon acquire. They can not only run, often with great ease and facility, but they also acquire the power of leaping, dancing, etc., to such perfection that their disability frequently passes unrecognized.

<sup>1</sup> Truax, an experienced manufacturer of artificial limbs, makes this statement: "When a section has been made through a bone no weight can be borne on the end of the stump. Disarticulation or an osteoplastic operation alone will admit of pressure."—"Amputations in the Light of Prosthetic Science."



(b) *As regards the adaptation of the stump for an artificial limb.*—As previously stated, the stump after ankle-joint amputation takes direct support upon the extremity. Mr. Quain thus speaks of the advantages of direct support in referring to Syme's amputation: "It is free from any valid objection, and, what is more important, the result in practice has been found to be good. A person who has undergone this operation is enabled to bear his whole weight upon the end of the stump without inconvenience; and on this account the facility of progression is, with a proper apparatus, decidedly greater than when the amputation is performed at any higher part of the limb."

The advantages of the ankle-joint stump over those of the leg for the adaptation of an artificial limb are admitted by the most competent mechanical surgeons to be of the most undoubted character. In Syme's amputation the patient walks upon the end of the stump with ease and grace, can run, leap, and dance, and is capable of enduring fatigue little short of that of the sound limb. Dr. E. D. Hudson, of New York, a most skilful mechanical surgeon, and who was selected by the government to apply artificial limbs to the soldiers in the hospital referred to, states that in fifty cases of ankle-joint stumps to which he applied limbs he had not met with a single instance in which the stump did not, after preparatory treatment, take direct pressure without inconvenience and give a most happy result. No results at all comparable with these are attainable with any form of stump above the ankle.

This review of the comparative merits of ankle-joint and leg amputations, as exhibited by statistical evidence, authorizes the following conclusions:

1. The stumps left after ankle-joint amputations are far more serviceable for unassisted locomotion than those resulting from leg-amputation.
2. An artificial limb can be far more usefully applied to an ankle-joint than to a leg stump.

#### **SHOULD INEBRIATES BE PUNISHED BY DEATH FOR CRIME COMMITTED WHILE INTOXICATED?<sup>1</sup>**

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A NEGATIVE answer to this question is an evolutionary growth, coming into prominence uninfluenced by legal rulings or personal opinions.

It is asserted that over five hundred homicides occur every year in this country in which this question comes up.

In every case it is met by the statement of the

law "that drunkenness in law is no excuse for crime," and this is urged as if it were a fixed principle. Three hundred years ago Lord Coke, of England, decided that inebriety always aggravated the offence, and the punishment should be rather increased from this fact. This view has been the theory for the legal treatment of inebriety up to the present. It practically assumes that inebriety is a phase of savagery, and a tendency to lawlessness, or giving up all control or restraint of the lower animal impulses without regard to law, order, or society. An ethical and moral theory of inebriety calls this moral depravity and an innate vicious impulse. The remedy urged from these theories is severe punishment and suffering—the vengeance of the law, intimidation, pain, loss, and so on.

The *modern scientific view* affirms inebriety to be a physical condition of degeneration and disease, inherited or acquired, and at all times a modified form of insanity. The use of alcohol is in many cases only a symptom of degeneration, and in all cases it not only produces changes of brain-circulation, congestion, paralysis, and impairment of all functions and organic processes, but it kindles into activity latent degenerations and tendencies, the result of which is incapacity to reason, with imperfect control and damaged senses. The inebriate cannot be a normal, sane man.

The practical question to be determined is the possibility of anyone using spirits to excess, at intervals or continuously, without impairing his judgment and power of control.

Intoxication, whether associated with delirium or stupor, is always a condition of brain-paralysis and poisoning in which the mind is incapable of acting normally. This condition is recognized as insanity, and has all the symptoms, only varying in duration, and is followed by a return to former health. The more frequent the intoxication, the greater the injury to the brain; and the shorter the intervals between these attacks of poisoning, the more doubtful restoration would be to follow. These facts are self-evident, and crime committed when in the intoxicated state would always be the act of a madman.

In a casual grouping of twenty murders reported in the daily papers, in every instance the account described the criminal as intoxicated or drinking heavily at the time of the commission of the crime. In four cases the criminal had awakened from the stupor of intoxication, and drank again before the acts committed.

In all such cases the obviously unsound brains, and mental incapacity to either reason or control, must be beyond question. At this point the law urges the most presumptuous fiction, viz., that this state of madness is voluntary and within the control of the victim, who should be punished for using

<sup>1</sup> Read before the Section on Medical Jurisprudence of the Pan American Medical Congress, held in Washington, D. C., September 5, 6, 7, and 8, 1893.



spirit with full knowledge of its effects on his mind and conduct. This assumption, if true, must necessarily be founded on physiologic and psychologic facts that are far beyond all present knowledge. A brief outline of some of the effects of alcohol on the brain will make this clearer.

To-day it is shown that the action of alcohol on the brain and nervous system is anesthetic and paralyzant. The use of alcohol to excess at intervals or continuously always numbs and paralyzes the higher operations of the brain; the over-stimulated heart reacts and depression and feebleness follow. All the senses are disturbed and become more or less incapable of transmitting the impressions which are received. The brain cannot accurately comprehend the nature of acts and the relation of surroundings when under the influence of alcohol. The palsy which follows from this drug masks brain-function. Delusions of vigor and strength appear; events, their consequences, and motive and conduct, are all exaggerated, misconceived, and misinterpreted, and the brain is unable to correct them. The pronounced delusions, illusions, delirium, mania, imbecility, and stupor seen in states of intoxication are only the advanced stages of brain-conditions which begin with the first glass of spirit. The early-changed conduct and speech of men who use spirit are the first symptoms of the paralyzing action of alcohol. More spirit is followed by more paralysis, and finally all judgment and experience and all distinctions of right and wrong, of duty and obligation, are confused and unreal. The supposed brilliancy which follows the use of spirit is unreal and transient—it is the glamor of the mind which has lost its balance and is unable to correct itself. No other drugs are known, the paralyzing effects of which on the higher brain-centers are so positive and insidious. The inebriate and moderate drinker have always impaired brain-force and nerve-power. The automatic nature of their life and brain-work may cover up this fact; but change the surroundings and demands on the brain, and its incapacity appears. Every toxic state from alcohol more or less permanently impresses and debilitates brain-integrity.

The fear of the law and the consequences of acts make little impression in such cases. The brain is anesthetized and crippled, and cannot realize events and their nature and consequences. The more pronounced the inebriety and the longer its duration, the more positive the disease and incompetency to reason and control acts. The effort to fix a point in all disputed cases where sanity and responsibility join insanity and irresponsibility is an impossibility which every advance of science demonstrates. It is equally impossible to use alcohol to excess for years and have a sound, normal

brain. It is impossible in such a case to fully realize the nature and consequence of acts and obligations. It is a legal fiction to suppose that a crime committed while under the influence of alcohol is the voluntary act of a sane man. It is a legal fiction to suppose that a sane man would plan a crime, then become intoxicated for the purpose of executing it. It is a legal fiction to suppose that premeditation in crime committed by an inebriate is evidence of sanity and consciousness of his acts. These are some of the facts of science which bring additional evidence of the error of capital punishment in such cases.

A study of the crimes committed by inebriates amply confirms the facts of brain-incapacity and brain-disease. Thus in cases of capital crime by inebriates, delusions, illusions, morbid impulses, and epileptic explosions are common symptoms. In many cases capital crime is the result of peculiar circumstances and sudden strains on the enfeebled brain, or the possession of a morbid impulse, a delusion or illusion that suddenly dominates the mind; also epileptic explosions, that are real attacks of maniacal fury and unreason. Alcoholic somnambulism or trance is present in many cases. The mind in these cases is oblivious to all outside influences or considerations and is subject to every passing impulse that may come from either external or internal causes. At the time no general indications of unconsciousness may be present, yet a certain automatic line of conduct and history of crime give clear hints of brain-enfeeblement. All crime by inebriates will be found associated with concealed or open delusions, morbid and epileptic impulses, and sense-deceptions. In all of these cases the brain is unsound and cannot act rationally and clearly. There are present in these cases either the insanity of inebriety or the inebriety of insanity. The inebriety of the prisoner has merged into insanity, and this concealed insanity or brain-degeneration has developed into inebriety or dipsomania. The death-penalty has no horrors for such cases. It is rather welcomed. The struggle for life is the attractive publicity that makes the hero of the man, and the mystery of the end of life intensifies the interest to the last moment. A form of delirious exaltation manifest in religious faith or a martyr's innocence sheds a mysterious glamor over the execution of the law that has no terrors.

In England, a century ago, when public executions for thieving were common, thieves and pick-pockets committed the same crimes in the crowds about the gallows. To-day the execution of an inebriate murderer, when all the details of the crime are made public, becomes an object-lesson, closely followed by inebriates who commit exactly similar crimes, in a similar manner.

The natural history of such cases is continuous punishment for inebriety, assault, theft, burglary, and petty crime, and finally murder. Each period of punishment is followed by the same or a more aggravated crime. The intent and purpose of the law is defeated, and this means of treatment both directly and indirectly increases crime and prepares the inebriate for worse and more hopeless states. The courts and prison officials are powerless; public opinion sustains the law and demands its execution irrespective of all consequences. The poor victims punished to-day reappear to-morrow, under arrest for the same or a worse crime. The severity of the punishment makes no difference. The inebriate who, under the influence of alcohol, commits assault to-day will do so to-morrow, and next year, and so on, as long as his inebriety continues. No legal punishment of fines and imprisonment can stop him. These facts are sustained by the experience of all courts and prison officials. They also apply equally to the death-punishment of inebriates for crime.

When the crime is the direct or indirect result of inebriety, it is only the natural outcome or logical result of conditions of brain-disorder and surroundings. The assumption that inebriety is always a voluntary condition within the control of the person, is a most fatal error. On this error is based the death-penalty. Its practical failure is apparent in the increase of capital crime by inebriates. The inebriate who has been arrested for petty crime while intoxicated many times before, finally commits murder in the same condition, and is executed. His friends and companions do the same thing and suffer the same penalty. Thus one brutal murder committed in a state of intoxication is followed by another equally brutal, and the execution of the murderer makes no diminution in the number of similar crimes that follow.

In every daily paper appear records of the same murders by inebriates under the same circumstances. A wave of public vengeance may dispose of the criminal by lynch-law, or only be satisfied when he is hung, but the same murders are committed again by the same class of men. This is only the repetition of the same blunder of fining and imprisoning inebriates for inebriety and petty crime. In both cases the victims are destroyed and similar offences are increased rather than diminished. In one case imprisonment and fines make the inebriate more incurable and less capable of change of life and living; in the other, the execution of the inebriate leaves a brutalizing, combative influence and a form of contagious glamor that defective brains are powerless to resist. These are the facts which experience and observation fully confirm, and which the latest teachings of science explain and point out.

A summary of the facts that we have outlined would sustain the following statements:

1. The legal treatment of insanity has changed in obedience to a more accurate knowledge of the brain and its diseases.

2. The legal treatment of inebriety is unchanged to-day. Although it occupies two-thirds of the time of courts, all teachings of science and a larger knowledge of the inebriate and his malady are ignored.

3. The ruinous error of punishment by fines and imprisonment of inebriety, and petty crimes associated with it, which notoriously increases and perpetuates the inebriate and criminal, is a fact demonstrable in every community.

4. Thus public opinion, through medieval theories and laws, is training and preparing a class of inebriates who first commit petty, then capital crime, with a certainty that can almost be predicted.

5. The death-penalty for such crime utterly fails for the same reason. The execution of any number of this class simply opens the door for an army already prepared and trained to take their places.

6. From a scientific study of these cases, it is clearly apparent that they are diseased and incapacitated to act sanely. Alcohol has palsied the brain and made them madmen. The very fact of the continuous use of alcohol is evidence of mental impairment and unreasoning act and thought.

7. To hold such men accountable for their acts, and by punishment expect to deter them from further crime, and by such punishment check others from similar crime, is an error which both scientific teaching and experience point out.

8. The object of the State, through the law, is to protect society and the individual; but if the execution of the law-breaker fails to accomplish this end, the laws are wrong.

9. The unfounded fear that the plea of insanity in crime, and the failure to punish, constitute an encouragement for further crime, is flatly contradicted by statistics.

10. Among the mentally defective, the insane, and inebriates, the death-penalty is followed by an increase rather than a diminution of crime.

11. The inebriate should never be hung for crime committed while under the influence of alcohol.

12. This method of punishment is never deterrent, but furnishes an attraction for other inebriates who commit similar crimes in the same way, following some law of mental contagion.

13. The inebriate murderer should be confined for the rest of his life in a military work-house hospital. He should be under the care of others, as incapacitated to enjoy liberty and incompetent to direct his thoughts or acts.

14. A change of public sentiment and law is

demand, and a readjustment of theory and practice called for. The criminal inebriate occupies a very large space among the armies of the defective who threaten society to-day, and his care and treatment must be based on accurate knowledge, and not on theory.

15. Inebriate murderers should never be placed on public trial, where the details of the crime are made prominent or the farcical questions of sanity are publicly tested. They should be made the subject of private inquiry, and placed quietly in a work-house hospital, buried away from all knowledge or observation of the world.

16. The contagion of the crime and punishment would be avoided, and the inebriate's services might repair some of the losses to society and the world.

### MALLET-FINGER.<sup>1</sup>

BY ROBERT T. MORRIS, M.D.,  
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THE deformity here described is not uncommon among men who engage in athletic sports.

When the extensor tendons of the fingers are tense, a blow upon the end of a finger transmitting force in a direction which would ordinarily flex the finger, results in injury to the extensor tendon in the vicinity of its attachment to the dorsal surface of the last phalanx. The injury consists, not in a bodily separation of the tendon from its points of attachment, but rather in a thinning of the tendon cephalad from the principal point of attachment to the phalanx, and from the fibers that form the

FIG. 1.



Mallet-finger. (Showing permanent dropping of tip of forefinger.)

posterior ligament of the last phalangeal articulation. A few fibers of the tendons are undoubtedly ruptured, but most of them slide away from each other very much as the threads of a textile fabric separate when the fabric is violently stretched, but not torn, the structure retaining its original general appearance.

<sup>1</sup> Read before the Section on Anatomy of the Pan-American Medical Congress, Washington, September, 1893.

Immediately after the occurrence of the injury to the tendon the last phalanx of the finger assumes a semi-flexed position, and the deformity is usually permanent, the extensor tendon then having little

FIG. 2.



Extensor tendon of index finger thinned by artificial production of Mallet-finger upon the cadaver.

or no influence upon the freed phalanx. Aside from the uncanny appearance of such a finger, the deformity is a source of much annoyance to the patient.

The tendon is repaired without much difficulty by making a longitudinal incision two centimeters in length over the site of the injury, dividing the

FIG. 3.



End of finger, showing line of incision and sutures. The two black dots mark the points at which the fasciculi and tendon are sutured to the skin.

thinned tendon longitudinally into the two principal fasciculi into which it naturally separates, dividing the tendon transversely, cephalad from the thinnest point, and advancing each fasciculus to a point upon its own side of the finger, near the base of the finger-nail. At this point the fasciculus is sutured to the under surface of the skin with a suture which passes through the skin, and is tied upon the outside. The fasciculi are sutured to skin rather than to periosteum and tendinous remains, because the former structure affords a firmer hold and the cut end of the tendon makes as good union with the phalanx as it would if sutured directly to periosteum.



The finger-nail is sometimes lost temporarily as a result of the operative disturbance near its matrix.

FIG 4.



Temporary flexion at middle phalangeal articulation after advancement of extensor tendon.

When the advanced fasciculi are sutured in place there is an over-correction of the deformity of the phalanx, which causes also a flexion at the middle phalangeal articulation. This condition is temporary and disappears spontaneously in a few weeks, leaving a perfect finger.

## CLINICAL MEMORANDA.

### THE REMOVAL OF STONE IN THE BLADDER; LITHOLAPAXY.

BY W. S. FORBES, M.D.,  
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IN reporting the following five cases in my list of patients with stone in the bladder, and on each of whom I performed the operation of crushing the stone and removing the fragments and debris from the bladder at one sitting (litholapaxy), I desire to call attention to the range of years in the patients, and to emphasize the fact of the successful application of litholapaxy to the young child as well as to the old man.

The oldest patient was eighty, and the youngest was three years of age.

The old man had a very large prostate gland, but was otherwise in good condition. In the child, of course, the gland was but rudimentary, yet in each case the appropriate lithotrite and canula were used with ease, and there was the happiest result in crushing and removing the fragments.

CASE I.—J. W., of Virginia, aged eighty years, was examined on February 1, 1893, and on February 8th the stone, of the uric acid variety, was crushed and removed. On the 15th of February he went home well. The weight of the fragments was 136 grains.

CASE II.—G. W. C., of Erie, Pa., aged fifty-five years; brought to me by Mr. O. C. Aichner, a member of my class; was examined on the 25th of January, 1893. On the 29th the stone was crushed and removed. On

the 6th of February he returned home, well. The fragments weighed 90 grains. It was of the oxalate of lime class.

CASE III.—C. A., of Philadelphia, twenty-three years of age; also brought to me by Mr. Aichner; was examined on February 15, 1893. On the 20th inst. the stone was crushed and removed. He was discharged on February 28th, well. The fragments weighed 80 grains. The stone was phosphate of lime.

CASE IV.—J. B. M., of Mercersburg, Pa., seventeen years of age; brought to me by my friend Dr. E. A. Hudson, of Mercersburg. He was examined on February 7, 1893. This young man had suffered from symptoms of stone for ten years. He was a farmer's boy. His bladder was capable of holding only two ounces of water, and its walls were much thickened. On the 18th of February the stone was crushed and removed. He went home well on March 1st. The fragments weighed 320 grains, and their composition was uric acid and phosphates. The stone had a large and very hard and tough uric acid nucleus.

CASE V.—B. O. D., of Philadelphia, was three years of age. This child had symptoms of stone for more than a year. He was examined on the 28th of January, 1893. The stone was crushed with a No. 10 (American scale) lithotrite, and the fragments removed on February 3d. He went home well on March 1st. The fragments weighed 70 grains. The composition was uric acid.

In every one of these cases the bladder was washed out previously to the operation with a mild sterilizing lotion—bichlorid of mercury and warm water, 1:10,000. At the moment of operation all urine was drawn off, and, according to the size of the bladder, from two to six ounces of the boric solution injected. After the operation the bladder was well washed with a warm boric solution, and after this a large hot hop-poultice was applied to the entire abdomen.

Ether was used on every occasion.

1704 WALNUT STREET.

### DISEASE OF THE MIDDLE EAR INVOLVING THE MASTOID PROCESS.

BY W. F. CONNERS, M.D.,  
OF OIL CITY, PA.

ON February 23d, Dr. Jas. B. Siggins, of Tionesta, kindly asked me to see a case of ear-disease with him. The patient, Mrs. A. M. D., twenty-eight years old, delicate and reduced by an attack of influenza, was seized with sore-throat about two weeks previously, with pain in the right ear, which shortly afterward began to discharge a large amount of pus. All went well for a few days, when the left ear began to discharge. A few days before I saw the patient, the right ear had ceased to run and the mastoid process of that side had become very painful. On the day before I saw her the woman had several "sinking" spells, with semi-coma, at times being delirious and roused with difficulty. The pain had been combated with hot external applications, which could no longer be borne. On examination, the bony part of the auditory canal was found to be filled with a whitish detritus, and nearly closed. After a hot carbolicized douche the ear-drum was found floating in the basin, having been washed out of the ear. The hearing

in the right ear was *nil* and one had to speak loudly into the left in order to be understood. The left drum was gone, except for a narrow rim in the center around the handle of the malleus, which looked red and was bathed in pus. No tenderness of the left mastoid was observed. Owing to the weak condition of the patient we deferred operating on the mastoid and decided upon adding quinin and iron to the strychnin which the patient was taking, and morphin to control the pain. During the next few days, the douche being continued, the patient made some improvement, but got little relief from the mastoid symptoms. Four leeches were tried, but they caused so much pain that they could not be kept on. I saw the patient again on the 28th, and finding the right canal much congested, opened it freely along its lower part. There followed a free flow of blood, which for a time relieved the pain. I did not see the left ear for want of time, but learned that it still ran moderately. The tenderness over the right mastoid was less, and a poultice could now be borne. I directed a cantharidal plaster an inch square to be applied to the mastoid just behind and slightly below the auditory meatus. The night of the 28th and the day of the 29th were both bad ones. They were followed by an erysipelatos eruption over the right half of the head, preceded by marked congestion of both eyes, and with entire relief from the pain over the right mastoid and ear. On the morning of March 2d patient complained of a bad taste in the mouth and for several weeks expectorated large quantities of fetid pus, at times mixed with blood. The quinin was replaced by tincture of ferric chlorid.

Three months later I examined both ears at my office; found the drums healthy and the hearing-distance, for a watch, about three feet, with scarcely any evidence of the imperilling condition in which the woman had been.

#### **SOME OBSERVATIONS ON A CASE OF COMPOUND FRACTURE OF THE SKULL.**

BY J. CHALMERS DA COSTA, M.D.,

OF PHILADELPHIA;

DEMONSTRATOR OF SURGERY IN JEFFERSON MEDICAL COLLEGE.

A RECITAL of the following case will illustrate some facts from which conclusions of great practical importance can be deduced.

Mr. G., forty years old, a commercial traveller, was struck on the head with a cane during a street-brawl. He was temporarily unconscious, but, on reaching the hospital, was found to be perfectly conscious. An examination made ten hours after the accident showed the man to be spare and of medium height, apparently healthy and well nourished. There was a contused wound over the left eyebrow, leading down to uninjured bone, and inflicted by falling down upon the face when struck. Both eyes were blackened; the conjunctiva much injected; the face discolored; the pupils equal and normal in size and reaction. There was a contused wound, one inch long, upon the right side, over the posterior inferior portion of the parietal bone, which bone, touch disclosed, was very decidedly depressed. The mind of the patient was entirely clear; he was able to detail with calmness and accuracy the events leading up to the assault. Moderate pain was felt about the fracture, in addition to a general dull headache, but

there was no spasm, no paralysis, no affection of bladder or rectum.

In spite of the entire absence of cerebral symptoms, the extent of the depression and the fact that the fracture was compound led me to advise trephining, which recommendation was approved of by Professor Keen. The scalp having been previously shaved and rendered surgically clean, the patient was at once etherized and the parts exposed by a free incision. The bone was trephined and a button removed from the end of the split toward the vertex. The inner table exhibited extensive splintering, large fragments having been driven deeply under the edge of firm bone, thus widely separating the dura. At least an ounce of fresh blood escaped on removing the button and lifting the depressed fragments; the blood was seen to have come from a laceration of a posterior branch of the middle meningeal artery, which was still bleeding. There was also a great amount of blood welling up from under the lower edge of the wound, some radicle of the lateral sinus having suffered. All of the fragments were removed; the bony edges were cut smooth with the rongeur; the bleeding from the artery was arrested by passing catgut ligatures around the vessel on each side of the rent; the bleeding from the vein was checked by packing with iodoform-gauze. The fragments were not replaced. The end of the gauze projected out of the wound, the edges of which were approximated with sutures of silkworm-gut. The wound of the forehead was also sewed up. It seems needless to state that we were most careful to cleanse the wound and to keep it clean. Dressings of corrosive gauze were applied and the patient returned to bed.

The morning after the operation the temperature was 101°, but it fell to normal under the influence of a purgative, and the following morning, forty-eight hours after the accident, the packing was removed. Now came a question. None of us could remember absolutely how many pieces were used. I should have known, but did not, and, instead, believed that there were two, but only one could be found by a careful search. We determined to await developments. The case progressed most favorably. The wound healed by first intention, except at a small point where the packing had projected and at which point a few drops of serum escaped daily. On the seventh day the stitches were removed, and our apprehensions were entirely allayed as to any foreign body being retained within the skull.

For ten days there was not a bad symptom, but on the eleventh day the patient was most peculiarly garrulous, irritable, and complaining. An eye-examination made by Prof. de Schweinitz showed evidence of increased pressure. The man passed a bad night, and on the twelfth day was restless, excessively talkative, complaining loudly and angrily, and asserting that people were in league to injure him. On the thirteenth day his mental condition was worse, and there was great rapidity of utterance, though no incoherence of speech or confusion of thought, which are so common in traumatic insanities. The patient asserted that he had heard people plotting against him the night before, and manifested plainly unsystematized delusions of persecution. During all of these days there was no fever, and the wound looked perfectly healthy. The emotional disturbance, hallucinations, and restlessness, with the unsystematized

nature of the delusions forced us to a diagnosis of mania. We determined to look again for a possible piece of packing, opening the wound if necessary. The small sinus was enlarged, and I took a probe broken across the middle of the eye, so that two arms were left on the shaft like the prongs of a fork. This I hoped would entangle a bit of gauze if any were left. It was passed between the bone and dura and caused to make a circuit, withdrawing it often to look for an entangled thread. This to our relief finally appeared, having been drawn from the direction of the lateral sinus. A pair of forceps was introduced, the foreign body caught, and a double piece of packing, eight inches in length and an inch in width, withdrawn. The packing was absolutely sweet, contained no pus, and its withdrawal was followed by no discharge. That night the patient slept well, and in the morning presented no excitement or anger whatever, and had lost his persecutory delusions. He went on to complete recovery, and was discharged, cured, twenty-one days after the accident, and eight days after the removal of the gauze.

This case teaches us that no uncertainty should ever exist about the number of pieces of packing introduced into a wound. Only one piece should ever be employed. It would have been better in the case reported, when we found ourselves undecided, to have opened the wound instead of waiting. No harm would have come from opening, while great harm might have come from waiting. This plug of gauze, of such large size, and wedged as it was between the bone and dura, must have exerted great pressure, and yet so tolerant was the brain that ten days passed without a sign of its presence, of which the eye-examination gave no hint. The amount of pressure to which the brain was subjected, without being lashed into complaining, suggests the probable existence of some other factor than pressure when cerebral symptoms accompany depressed fracture. The onset of mania, with delusions, as a result of pressure, and the immediate relief of the symptoms on relief of the pressure, is to me a novel observation. The certainty of our antisepsis was well demonstrated. Had we failed in it disaster would have been almost inevitable.

This case shows further, if any further demonstration is needed, that all compound fractures of the skull, and all fractures with marked depression, require trephining, whether cerebral symptoms are present or not. In this patient cerebral symptoms were entirely absent, and yet there was extensive splintering of the inner table and progressive bleeding between the dura and the bone, which, in a short time, must have caused symptoms of the greatest gravity.

**CYSTOTOMY FOR RELIEF OF STONE IN AN  
INFANT SEVENTEEN MONTHS OF AGE,  
FOLLOWED BY RAPID RECOVERY.**

BY CLAUDIUS H. MASTIN, M.D., LL.D. UNIV. PENNA.,  
OF MOBILE, ALA.

As so much has been written during the last few years upon the subject of stone in the bladder, and the various methods adopted for its relief have been so fully and clearly discussed, it seems a work of supererogation even to report an operation for so common an affliction.

In this instance, however, the extreme youth of the little patient, together with the rapid recovery which he made after being operated on, induces me to think that it will not be uninteresting to the surgical readers of THE NEWS if I briefly lay before them the details of the case.

The impression commonly exists that stone is more frequently found during the years of childhood than in youth or adult life. Such, however, is not correct, for a careful analysis of facts, together with properly corrected tables of statistics, will prove the contrary. Although stone is often found in children under three years of age—even in tender infancy, as it is in those of the most decrepit old age—still it is not, by any means, more common in childhood than in adult life!

The difficulty of accurately determining the frequency of the disease at different ages has resulted from the want of care exercised by statisticians in distinguishing between *absolute* and *relative* numbers, for it is evident that if we are to ascertain the real proportion of a given disease at different ages, we must include persons not operated on, as well as those that have undergone the operation of cystotomy; having done so, we shall obtain a very different result from that which is furnished by the present existing tables of frequency. For example, if all persons under the age of twenty years were afflicted with any one disease, and all persons over seventy were afflicted with the same complaint, it is evident that the liability would be the same, although the absolute number of persons attacked would be very different. If, then, we construct our tables after this method, including those operated on, as well as those not subjected to any treatment, we shall find that children and young persons are less liable to calculous disorders than has been stated; whilst in reality, from the age of twenty the tendency increases in a remarkable degree to the end of life.

It is not common to find children under the age of three years the victims of calculus, although none is exempt, even from birth to old age. The trouble has been found to exist in intra-uterine life, as is evidenced by the case of Langenbeck, in which he found a calculus in a six months' male fetus; also the case of Stahl (reported in his *Diss. de Morb. fœtuum in Utero Materno*), in which he found a calculus the size of a peach-kernel in an infant of three weeks, the child having suffered great distress from its birth with every act of micturition. Gayer also reports a case which had suffered from birth with all of the symptoms of stone, and which was operated on at twelve years of age, when the stone was found to be so large that it could not be removed until broken up; the fragments were found to weigh ten ounces. Similar cases are reported by various authors who have found stone in young children; but the youngest patient, of which I have any knowledge, which has been subjected to the operation of cystotomy is the case reported by Mr. William Coulson, of London; it was a little boy eighteen months of age upon which he operated, but in the mention of the case he does not state the result of the operation, and I cannot say whether it was or was not successful. Some years ago I was called to a child aged six months, and suffering from retention of urine. Upon introducing a very small gum catheter, I met an obstruction in the membranous urethra, which proved to be due to a calculus about the



size of an ordinary garden pea. I removed it through an incision in the perineum, and the child made a rapid and permanent recovery.

About the middle of June of the present year, during the intense hot spell of weather we were having at that time, a miserable, wizened little child was brought to my office from the adjacent country, for advice and treatment for an attack of "summer complaint," as it was diagnosticated; "entero-colitis" being always prevalent at that season of the year, and hence the mistake.

I found the child straining in its efforts to pass its urine, the genitals chafed and sore, the rectum prolapsed, and all the rational symptoms of calculus present. Under the influence of chloroform, the sound readily detected the stone, and an operation for its removal was advised. In the condition of the child, I did not think it advisable to operate until after a reasonable amount of preparatory treatment had been instituted. To this end, I ordered tepid baths, anodyne enemata, with a solution of sodium bicarbonate and boric acid, to neutralize and render aseptic the urine; this to be combined with a tonic course of the syrup of the iodid of iron, on account of the strumous condition of the child.

The history given was to the end that, last February, for the first time, it was noticed the child had frequent and violent attacks of pain whenever it attempted to pass its urine, and had steadily and increasingly grown worse until it was brought to me in June. The attending physician had resorted to all manner of carminatives, but without avail; and so the parents concluded that none of those "mixtures" would cure the colic, and the child was brought to me as a *dernier ressort*, just as surgeons so frequently receive cases of "obscure disease."

The parents were "well-to-do" farmers, residing in the rural districts, with a family of six or seven children, of which this was the youngest—seventeen months of age. The family history showed no diathesis to which this disease could be traced, if we exclude rheumatic troubles which had been prevalent in some of the ancestors. The mother was deaf, and it was, on that account, difficult to gather a clear history of her family.

After a few days the child had so improved in condition that I thought it best to do the operation, and let it be taken from the city to the fresher air of the country.

On the 19th of August, assisted by Dr. Wm. M. Mastin, who held the staff for me, and other professional friends who were present, the infant being under the influence of chloroform, I performed the median operation and quickly entered the bladder. The stone was very readily found and grasped by the forceps. Not having in my collection a pair of stone-forceps small enough for the case, I was compelled to use a pair of polypus-forceps, having roughened ends; and with this the stone was crushed upon very slight pressure. This being an unavoidable accident, it is not possible for me to give the exact size of the stone, which was removed as a mass of débris. From the bite of the forceps when the stone was first seized, I estimated it to be about as large as a peach-kernel, and the mass of detritus washed out, together with the débris removed by the forceps, would indicate a close approximation to that size. The little fellow very soon reacted from the anesthetic, and within a few hours was as comfortable as he had been previously

to the operation. The urine was voided both through the wound and through the natural passage. On the night of the day upon which the operation was performed the child had a temperature of 104° F., which speedily subsided under a small dose of phenacetin, and the next morning he was bright and comfortable. No inflammation followed the operation, and for three days the urine lessened day by day in its passage through the wound until the fourth day, when the incision had so nearly healed that I thought it safe to permit the parents to take him to his home in the country. I have since then heard from them that he has been perfectly relieved and is improving rapidly. The case is an interesting one, both on account of the extreme youth of the patient and the rapidity of recovery after the operation, the patient being discharged on the fourth day, with the wound almost entirely healed and the act of micturition normal.

This case will illustrate the value of "median perineal cystotomy" in children, and go to show that it is an easier, safer, and more rapid procedure than any one of the other operations now in vogue.

Uric-acid formations are the most frequent, but, without an analysis, I am inclined to think from the appearance of the fragments that the concretion in this case was made up of ammoniaco-magnesian phosphates.

## HOSPITAL NOTE.

### THREE CASES OF ANEURISM OF THE AORTA.

*German Hospital, Philadelphia.*

SERVICE OF ADAM TRAU, M.D.

[Reported by ALFRED HAND, M.D., Resident Physician.]

#### CASE I. ANEURISM OF THE AORTA; DEATH FROM HEART-FAILURE.

B. S., female, thirty-seven years of age, born in Ireland, married, was admitted July 17, 1893. No family history could be obtained, and all the previous personal history that could be elicited was that four years ago she had had rheumatism, and about six months ago three profuse uterine hemorrhages.

Her present illness dated back six weeks, during three of which she had been in bed. It began with loss of appetite and weakness; then diarrhea and vomiting set in, with pain in the abdomen; she had coughed some, and expectorated some white mucus. There had been neither nose-bleed nor headache.

When admitted she was evidently in a precarious condition. Her face was cyanotic, the pupils were dilated, breathing was labored, and she had a harsh, dry, brassy cough. She was in somewhat of a stupor, but could be roused easily, and would answer questions intelligently. Her temperature was 101.6°, but at evening it came down to normal. The pulse was a typical water-hammer pulse, the rate being 116 per minute. The apex-beat was in the sixth interspace, outside the nipple-line. At the aortic cartilage there were two murmurs—one systolic, transmitted into the carotids, and one diastolic, heard all over the precordia. There was a systolic murmur at the apex transmitted toward the axilla, and failing compensation was diagnosticated. The lungs were clear,

with the exception of moist râles posteriorly. In the left hypochondriac region there was a large area of dullness extending a little below the costal border, while in the right hypochondriac region the dullness was of such slight extent and situated so far toward the mid-axillary line as to suggest a transposition of the liver and the spleen, but after careful examinations it was seen that the liver-area was much shrunken, while the spleen was enlarged.

Throughout the duration of the case there was albuminuria, with hyaline and granular casts.

The daily notes of the case are as follows:

2d day. The diarrhea has ceased, but the pain in the abdomen and vomiting continue; temperature from 99° to 100° F.

3d day. The vomiting has yielded to treatment; patient apparently moribund, but can be aroused for a few seconds at a time; respirations 8, pulse 84, temperature from 99° to 99.8° F.

4th day. Condition same as yesterday, but the abdomen is very tympanitic; expression of the face like that often described as typical of peritonitis; respirations 10, pulse 95, temperature from 99° to 99.6° F.

5th day. The bowels were moved once during the night; distention of the abdomen is excessive; respirations 10, pulse 128, temperature from 100° to 102° F. In the evening, while watching her closely, it was observed that during the pauses of respiration, there could be heard, when standing at the foot of the bed, a to-and-fro sound identical with that heard when a stethoscope was applied over the aortic cartilage. It very much resembled the sound made by a "donkey-engine."

6th day. At 11 A.M. the patient died, with a temperature of 106.8° F.

At the necropsy it was found that the abdominal distention was probably paralytic, as there was neither peritonitis nor obstruction. The liver was contracted, weighing 950 grams. The lobules were prominent, and the surface was very much like that of placenta. The spleen weighed 500 grams. The kidneys were congested. The heart weighed 400 grams; the valves were not diseased, but the aortic semilunars were rendered incompetent by a dilatation of the orifice due to an aneurism which extended from the origin of the aorta through the transverse arch. The dilatation of the aorta was uniform, and there were no clots; spots of beginning atheroma were numerous.

#### CASE II. DOUBLE ANEURISM OF THE AORTA, WITH RUPTURE EXTERNALLY.

M. K., male, aged forty-eight years, married, white, born in America, a bricklayer, was admitted October 25, 1892. His history was that three years before he had had a right-sided empyema, which was tapped. A rib was resected, and a drainage-tube inserted until the discharge ceased and the side healed. After this, he was in good health until about six months ago, when he began to be troubled with shortness of breath and painful deglutition. In a short time he noticed a small tumor close to the right border of the sternum. This steadily increased in size, and the difficulty in breathing and swallowing became greater. The appearance and growth of the tumor were marked by no special pain over it. He denied having had syphilis.

On admission he was found to have a pulsating tumor,

about the size of a hen's egg, over the third and fourth right costal cartilages, spreading also over the ends of the ribs. There were no heart murmurs, nor any thrill nor bruit over the tumor. The radial pulses were equal, and the pupils regular. Resonance was impaired over the right lung, and the respiratory sounds were feeble, with prolonged expiration. These phenomena, with his former history, raised the question of an *empyema necessitatis*, but owing to the expansile pulsation of the tumor, the pain on swallowing, and the wheezing breathing, the diagnosis was made of aneurism of the ascending arch of the aorta.

For about five months the man's condition remained practically the same, the tumor growing a little larger. The patient was very restless, and could sleep scarcely more than two hours in the twenty-four. At times the tumor would recede somewhat into the chest, and he would then imagine himself better, but the difficulty in breathing and swallowing would be greater.

He left the hospital for two months in the spring of 1893, but came back in June, with the tumor projecting three inches from the chest-wall and extending over an area six by four inches. The overlying skin had ulcerated, and from the surface blood shortly began to ooze. About a week later the rupture came, the stream of blood being at first about a quarter of an inch in diameter and of sufficient force to strike horizontally the wall four feet away. At least twelve minutes elapsed from the first spurt until life was extinct.

The post-mortem examination disclosed an immense aneurism of the ascending arch which had perforated the chest-wall, with erosion of the third and fourth ribs. At its exit from the chest it was constricted like an hour-glass, so that there were two large tumors, one on the inner side and the other on the outer side of the anterior chest-wall. A finger could be introduced through the point of rupture into the outer sac, and a soft clot and the perforation in the chest-wall could be felt. The inner sac could be explored by passing the finger up through the left ventricle into the aorta, which was lined with calcareous plates in its first part. The inner tumor also contained a large, soft clot. On the upper posterior part of the transverse arch was a sacculated aneurism about two inches in extent and an inch deep, containing a large lamellated clot. This aneurism was probably the one which gave rise to the difficulty in breathing and swallowing. The heart was normal, no valvular lesion existing. The left lung was normal, but the right was largely solidified from compression.

#### CASE III. DOUBLE ANEURISM OF THE AORTA, WITH RUPTURE INTO THE TRACHEA.

C. K., a male, forty-two years of age, unmarried, white, born in Ireland, a laborer, was admitted June 20, 1893. His family history was negative. He himself had never been sick. He contracted gonorrhea and syphilis about sixteen years ago. Last October he began to have sharp pains about the left chest and upon the left side of the face, which were thought to be due to a severe neuralgia. The pains would not be felt while his mind was engaged on his work, but when at rest he would feel them severely. They ceased about four months before admission, and did not trouble him afterward. For three or four weeks before admission he had had a dry

cough, laryngeal, and brassy in character, and a feeling as of something sticking in his throat. He had also been spitting blood for a few days, and exertion would make him short of breath. He had noticed at times unilateral sweating on the left side of the face.

Examination showed equal pupils; unequal radial pulses, the right being normal, the left almost imperceptible; veins around the clavicles dilated; heart-sounds normal; in the left carotid a systolic whiff not heard elsewhere. With both acts of respiration a wheezing sound could be heard at a distance of several feet. Examination of the chest was negative, except that there was dulness over an area with a radius of from an inch to an inch and a half from the left sterno-clavicular articulation. From this, the diagnosis was made of an aneurism of the transverse arch of the aorta, involving the origins of the left common carotid and subclavian, and pressing back on the trachea.

For three weeks the man remained apparently in about the same condition, occasionally spitting a little blood. The fatal hemorrhage came one morning as he was sitting quietly in a chair, after having risen and dressed himself.

The autopsy revealed a large aneurism of the transverse arch of the aorta, equal in size to the heart, beginning just at the origin of the innominate and extending to the descending aorta. It was filled anteriorly with a large lamellated clot, which was softer posteriorly, where there was a channel for the blood-current. The aneurism pressed posteriorly against the trachea, into which it had ruptured through a small opening about an eighth of an inch in diameter and an inch and a half above the bifurcation. On the thoracic aorta, just below the descending arch, there was a sacculated aneurism two and a half inches long and one inch deep, projecting backward. It was lined on the inside with calcareous plates and contained a small clot. The lungs were almost filled with blood, which had flowed down the air-passages, and a large clot occupied the trachea. There were no valvular lesions of the heart.

## MEDICAL PROGRESS.

*Ureteritis Membranacea.*—JAKSCH (*Zeitschr. für klin. Medicin*, xxii, 6; *Practitioner*, No. 302, p. 131) has reported the case of a woman, forty-five years old, who seven years previously suffered from pain in the back and right loin. Soon afterward there appeared pain in the left loin, sometimes attended with vomiting. Two years later a small calculus was passed, with severe colic, referred to the left kidney. Some relief followed this, but attacks of colic, vomiting, muddy urine, and painful micturition occurred at intervals, accompanied occasionally by rigors and fever. The urine was neutral in reaction, contained some albumin, and also some unbranched, translucent, ribbon-like structures about four inches long, arranged spirally. These bodies varied a little in breadth and resembled the similar appearances encountered in the sputum and feces. This resemblance was still closer in that they consisted of mucin and fibrin. Microscopically, they were like Curschmann's spirals, but without the central thread. On the surface could be seen flattened epithelial cells, singly

and in groups, such as are found in the bladder and ureter, amorphous masses and crystals of calcium sulfate. Throughout the sediment were scattered amorphous masses composed of calcium carbonate, fine crystals of triple phosphate, well-formed crystals of calcium sulfate, and epithelial cells from the ureter and bladder. Neither cells from the renal tubes nor colorless corpuscles could be found. After rest in bed, the pain in the loin disappeared and the condition of the urine changed in a few days, the spiral formations ceasing to appear and the crystalline forms becoming fewer in number. Sulfuric acid lemonade was administered, and the urine soon became acid, and in a few days the patient was dismissed, much improved.

*Varicose Veins in the Arms.*—DUTTON (*Lancet*, No. 3648, p. 248) has reported the case of a healthy-looking woman, sixty-five years old, who presented herself on account of an acute attack of eczema of the arms, legs, chest, and abdomen. Until the age of twenty-four the woman had been engaged in housework, doing a good deal of washing. Her work had been rather hard, and washing occasioned swelling and aching pains in the arms. At the age of eighteen, swellings were observed in the arms, which gradually increased in size. Various forms of treatment had been employed, but without avail. Both forearms and the arms for a distance of three inches above the elbow presented soft, painless, movable, superficial knotted masses of various sizes, from the diameter of a pea to that of a walnut. The varicosity did not appear to have attacked the chief superficial veins of the arms, but rather the ramifications of the veins, giving rise to well-defined masses. On vigorous flexion and extension of the forearm the superficial veins swelled to an unusual size. The patient stated that she had often noted the lumps to have a blue appearance, especially after a day at the wash-tub. No definite cause for the condition could be found. There were no signs of pressure; no enlarged glands in the axilla; no signs of intrathoracic tumor or aneurism; and no cardiac lesion. A mild bronchitis existed, but the general health was good. The condition gave rise to no special inconvenience beyond a considerable amount of aching pain after a hard day's work. There was also a considerable degree of varicosity of the veins of the legs and slighter varicosity of the veins of the thigh.

*Congenital Fistula of the Upper Lip.*—FEURER (*Archiv für klinische Chirurgie*, Bd. xlvi, H. 1, p. 35) has reported the case of a man, twenty years old, who from birth presented a fistula of the upper lip, a little to the right of theiltrum. The fistula terminated upon the mucous membrane of the lip, which extended upward to a greater extent than normal. A small amount of slightly turbid fluid resembling saliva continuously escaped in small drops from the external orifice, and upon microscopic examination was found to contain squamous epithelium. The tissues about the fistula seemed a little more dense than usual. A sound introduced into the opening passed upward and somewhat backward, and encountered an obstruction at the level of the lower margin of the right nasal orifice. There was no other deformity of either soft or hard parts. The constant discharge of fluid constituted a source of annoyance and the fistula was removed by way of the mucous surface of the lip. Upon



microscopic examination the lining membrane of the fistula and the surrounding tissue were found to correspond with the tissues of the interior of the mouth.

**Enlargement of the Spleen as a Symptom of Chlorosis.**—

In view of statements that the spleen undergoes no enlargement in cases of chlorosis, CHVOSTEK (*Wiener klinische Wochenschrift*, 1893, No. 27) made some observations upon this point at the second medical clinic of the Vienna General Hospital. In fifty-six cases examined with this end in view it was found that there was demonstrable enlargement of the spleen in twenty-one, usually of moderate degree. That the enlargement was not accidental or due to antecedent conditions not associated with the chlorosis was shown by the fact that in some cases the enlargement subsided in correspondence with the improvement in the general condition.

## THERAPEUTIC NOTES.

**The Treatment of Goiter by Massage.**—SZUMAN (*Münchener medicin. Wochenschr.*, 1893, No. 31, p. 583) has

reported the case of a girl, nineteen years old, who had presented a goiter from the age of eleven, and which had progressively increased in size from the period of puberty, at thirteen. For two years there had been, besides, complaint of weakness of the right hand and forearm, with occasional spasm. These symptoms were ascribed to overuse of the hands in sewing and knitting. The patient was also susceptible to catarrhal conditions of the eyes, nose, and throat. The girl's father likewise had a goiter. The patient was well nourished, and presented no lesion of heart or lungs. Both lobes of the thyroid gland were enlarged, and firm in consistence. The condition being believed to be a hyperplastic proliferation of the tissue of the thyroid gland, with increase of the cells of the follicles, massage of the neck was instituted. The patient being seated, the head was inclined slightly backward, and the throat well exposed. The masseur stood behind the patient, and applied the anointed fingers of the two hands in the groove below the lower jaw. The movements were made slowly, synchronously with the respiratory movements, and with varying pressure. The patient was directed to inspire deeply, for the purpose of creating a negative pressure in the thorax. By the aspiration of the thorax and the compression of the veins, the return of the venous blood to the heart was doubly facilitated. The lymphatic circulation was at the same time stimulated. Each sitting occupied a period of ten minutes. Improvement soon set in, and there was shortly an appreciable reduction in the size of the goiter. The patient failed, however, to continue the treatment until the total disappearance of the enlargement.

**Poisoning by Chloralose.**—LANG (*British Med. Journal*, No. 1700, p. 233) has reported the case of a middle-aged woman who, it was said, had taken an overdose of a soporific. She had been in the habit of taking drugs for sleeplessness, but it could not at the time be learned what drug had been taken or in what quantity. The woman was semi-comatose. She showed signs of irritation on attempts to awaken her, but she could not be roused sufficiently to give an intelligible answer to ques-

tions. The face was congested and bluish; the pupils equal and somewhat dilated; the breathing normal; the pulse 60, regular, fairly full, and of high tension; and the skin moist. On a table by the bed were an empty box, which had contained cachets of three grains each of chloralose, and a bottle of syrup of chloral, from which about six drams were missing. The stomach was at once washed out, the fluid returning clear and without odor. An enema of hot coffee was also given. The woman soon became sufficiently conscious to relate that she had taken only three cachets; that she had often taken two, and that on more than one occasion three cachets, without ill-effects. In a little while she was quite well, except for a slight headache. She stated that she had taken hypnotics for many years. Once before she had suffered from a very large dose of chloralose, but quickly recovered after an emetic. On the present occasion she had taken two cachets at 1 A.M., and a third about an hour later. She thought that she had slept for a short time after taking the cachets, then felt ill in an indefinite way, tried to open the door, which was locked, and then fell down and was found there unconscious at 4.30. It is suggested that the untoward symptoms may have been due to rapid absorption from the empty stomach or to impurity in the drug.

**For Tuberculosis.**—PICOT (*Deutsche med. Wochenschr.*, 1893, No. 30, p. 731) recommends a mixture of guaiacol and iodoform in sterilized olive oil for injection in the treatment of tuberculosis. Every cubic centimeter (16 minims) contains 0.01 (0.15 grain) of iodoform and 0.05 (0.75 grain) of guaiacol. The mixture is clear; its injection occasions no pain, is free from danger, and is reputed to have produced the same results as tuberculin and other agents. It is not considered a panacea for tuberculosis, but an adjunct to fresh air, sustained nutrition, massage, and gymnastics. Its use has been followed by disappearance of the cough, relief from expectoration, and cicatrization of cavities. Fever and night-sweats disappeared, so that curative results were obtained not only in the first, but also in the second stage of the disease.

**The Treatment of Hemoptysis.**—EKLUND (*Centralbl. f. die gesammte Therap.*, August, 1893, p. 503) maintains that nothing is more dangerous in case of hemoptysis than the common practice of administering cold drinks or bits of ice. The cold causes increase in the bleeding; by irritation of the vagus, cough is induced; and by contraction of the gastric vessels the flow of blood to the lungs is increased. Eklund, therefore, advises the administration of warm and mucilaginous drinks and the application of an ice-bag over the apex of the lung from which the hemorrhage is believed to have taken place. Besides, he directs the taking, three or four times a day, of three grains of quinin sulfate and a grain and a half of ergotin in pill form.

**Thyroid-Therapy for the Cachexia Strumipriva.**—At a recent meeting of Swiss physicians KOCHER (*Corresp.-bl. für Schweizer Aerzte*, 1893, No. 15, p. 529) presented five cases of the cachexia strumipriva in which treatment with thyroid extract had been followed by results entirely comparable with those obtained in cases of myxedema.

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## TUBERCULOUS PLEURISY.

INASMUCH as at this time the attention of medical men in all countries is being more than ever attracted to the etiology and pathogenesis of the inflammations of the serous membranes in general and of the pleura in particular, the delivery at Boston of the SHATTUCK Lecture upon the subject of "Tuberculous Pleurisy," by PROFESSOR WILLIAM OSLER,<sup>1</sup> of Baltimore, has come most opportunely. Whereas a few years ago clinicians carried to an extreme the idea that nearly all of the so-called idiopathic pleuritis were tuberculous in origin, at the present time and with the reaction following on the more exact bacteriologic researches, there is a tendency perhaps to ascribe to other microorganisms, *e. g.*, the micrococcus lanceolatus, too important an etiologic rôle.

As the field of medical knowledge grows wider, old facts reappear before us disguised in a different garb; we look at objects through tinted spectacles and are prone to give them color and shape from our glasses, only too often to the misrepresentation and distortion of what actually exists. It is at these times that we need the calm and impartial judgment of the experienced observer to correct our visual aberrations, and to prevent us, as the transformation proceeds, from losing sight of old and

well-established truths in the rush after new ideas and conceptions.

The SHATTUCK lecturer for 1893 has based his remarks upon the firm foundation of observed facts, and has combined with ample illustration of the different clinical types a careful description of the pathologic changes found in the different forms of tuberculous infection of the pleura.

That a large percentage of cases of pleurisy are definitely tuberculous he shows by an analysis of 101 successive cases of pleurisy that came to autopsy. There were in thirty-two fresh miliary granulations, caseous masses, or diffuse fibro-tuberculous membranes. In eleven of these there were miliary tubercles in the pleura; in eight there was empyema (singularly enough in every instance associated with pneumothorax), and in thirteen the exudation was sero-fibrinous and the pleural leaflets were more or less thickened.

Clinically, the tuberculous pleuritis are divided into two great classes: (1) the acute tuberculous pleuritis, and (2) the subacute and chronic forms. The acute variety includes three distinct groups: (a) Acute tuberculous pleuritis that subsequently run a chronic course. In these the onset may be abrupt and resemble a pleurisy *a frigore*, the patient being of good physique and of good family history. The subsequent history alone clears up the case. (b) Secondary and terminal acute tuberculous pleuritis in which miliary tubercles appear in the pleura as a result of direct extension, almost always from foci in the lung, and not necessarily associated with general miliary tuberculosis. That not all pleuritis terminating in pulmonary tuberculosis are tuberculous is shown by eleven of the 101 cases in which the causes of the pleurisy were organisms other than the tubercle-bacillus. (c) One of the most interesting of all of the forms described is the acute tuberculous suppurative pleurisy, in which there are in the pleura ulceration and suppuration due to the tubercle-bacillus. These cases have actually been looked upon as instances of mixed infection with pyogenic organisms, but in a case of multiple abscesses in the pleura in a young girl, reported by the lecturer, cultures made from the pus remained sterile, while cover-slip preparations showed an extraordinarily large number of tubercle-bacilli. This favors the theory that the tubercle-bacillus sometimes acts as a pyogenic organism, but until further examples are recorded it will probably be safe to still regard such cases as instances of mixed infection, the sterile

<sup>1</sup> Boston Med. and Surg. Journ., 1893, Nos. 3, 4, 5, and 6.

cultures perhaps being accounted for by the death of the pyogenic bacteria before the death of the patient. In any case this type of acute tuberculous pleurisy must remain a most interesting and important one.

Turning to the subacute and chronic forms, DR. OSLER divides these also into three groups: (a) those with a sero-fibrinous effusion, which may be primary (when they are prone to be particularly insidious and are likely to be overlooked) or secondary to lung-tuberculosis, when they are as a rule easily diagnosed; (b) those with a purulent exudate, when the onset is subacute, and the course is chronic and latent, usually associated with pneumothorax; and (c) the chronic tuberculous adhesive pleurisies, the special feature in these being the extensive, sometimes enormous, thickening of both layers of the pleura.

Attention is drawn to those less usual cases of general tuberculosis of the serous membranes that present a fairly distinctive clinical type, in which the infection attacks the serous membranes one after another, or in which the pleura and peritoneum, and at times the pericardium, may be affected almost simultaneously. The clinical classification of BOULLAND is closely followed here, and the obscurity of the affection, together with the protracted course, with periods of improvement and often with little or no fever, are dwelt upon. All of the clinical types are illustrated by protocols of cases that have been under the lecturer's observation.

Passing on to the general pathology of the tuberculous pleurisies, DR. OSLER deals at considerable length with the avenues of infection, describing the different routes by which the tubercle-bacilli gain entrance to the pleura. The majority of cases, it would seem, arise through direct infection from the lung, a superficial focus there extending directly to the pleura. In very many cases, however, including those of primary tuberculous pleurisy, the bacilli reach the pleura through the lymph-channels, by inhalation and deposition on the bronchial mucous membrane and transportation along with dust-particles through the interstitial lymph-spaces, or by infection through the lymph-channels from the neck (scrofulous glands, carious bones), or by extension upward from the peritoneum to the diaphragmatic pleura.

While in some cases the diagnosis is easy, in many it is extremely difficult to decide that a given pleural exudate is positively tuberculous—a fact

which is not surprising when we consider the very diverse clinical variations met with. The appearance of the individual, his previous history and that of his family, the mode of onset, the course of the affection, and the character of the exudate—all have to be carefully considered, but often none of them may even be suggestive—or when they lead to suspicion may be misleading. We are recommended to carefully inspect the different groups of lymph-glands contiguous to the pleura, and to examine the expectoration of the patient repeatedly for tubercle-bacilli. The bacteriologic examination of the exudate, which has been so much insisted upon of late, is fully dealt with, and when inoculations into ordinary culture-media remain sterile there is presumptive evidence in favor of a tuberculous pleurisy. The examination of cover-slip preparations, except in the case of a purulent exudate, rarely permits the demonstration of tubercle-bacilli. The inoculation of guinea-pigs with portions of the exudate probably offers the best chance of determining their presence or absence. In cases of empyema a tuberculous process is often complicated by infection with ordinary pyogenic organisms.

The diagnostic value of injections of tuberculin is regarded as very uncertain, and a case is reported in which a marked reaction followed such an injection, the autopsy subsequently showing the case to have been carcinomatous and not tuberculous at all. The diagnosis in the chronic forms, with sero-fibrinous exudate and thickening of the pleura, in which there is persistent flatness at the base of the lung, is peculiarly difficult, but the recurrence of an effusion in spite of frequent aspirations should make us suspect a tuberculous process.

The limits of this article will not permit us to more than mention the therapeutic suggestions laid down. The indications are twofold: (1) to limit and control the exudate and to endeavor to promote absorption, and (2) to improve the general condition of the patient and increase his powers of resistance, in order if possible to bring about healing of the tuberculous lesions. After the acute stage is over, during which rest and dry diet are desirable, repeated aspiration being resorted to if necessary, we are to endeavor to promote nutrition by careful feeding, a well-ordered life, perhaps by a change of climate, and by the exhibition of suitable tonics. Pulmonary gymnastics may be of value when there is retraction of the chest. The purulent cases, in which the condition of the patient permits, are of course to



be turned over to the surgeon for evacuation and thorough drainage. The lecture is brought to a close with a quotation from SIR ANDREW CLARK: "When we have a patient with basic fibrinous pleurisy let us hold him fast, restrict his freedom, and treat him carefully until every remnant of it is gone."

#### THE PROGRESS OF CREMATION.

CREMATION is like an epicure's dish, which must be tasted often before it can be liked, and the first taste thereof requires fortitude and high-thinking. Cremation has been opposed quite needlessly as a violation of law, of custom, of religion, etc. It deserves none of these censures, however, and is unmistakably growing into favor in Europe and America. In Germany,<sup>1</sup> for instance, in populous countries in particular, it is more frequently practised than elsewhere, perhaps from necessity. In Gotha alone during the past fifteen years there have been nearly twelve hundred cremations. It is found to be a decent, honorable, and salubrious method of disposing of the dead. It is easy and not expensive. Nor is this all. The usages of the churches, the rites that make up a Christian's obsequies, are not neglected. The burial service is commonly read; and we can scarcely resist the evidence that in the eyes of the Church there can be nothing impious in this mode of sepulture.

We are indebted to MR. AUBREY RICHARDSON for the ability to make these statements with a clear conscience. In an excellent little book recently published and entitled *The Law of Cremation*,<sup>2</sup> he furnishes ample proof of what has just been said. What, for example, can be more satisfactory than the following passage describing the method of procedure at Gotha: "The crematorium, which is constructed after the design of HERR SIEMENS, Engineer of Dresden (*regenerative system* with gas-furnace), stands in the new cemetery at Gotha. All the apparatus is situated underground, beneath the chapel floor, and is so arranged that the coffins can be lowered gradually into the receiving-chamber during the reading of the burial service, and mechanically passed on into the furnace itself" (p. 135). Such obsequies are not unpleasing, and we

hardly think that any imagination will startle at these details.

The selection of the site of a crematory is a point of the utmost consequence to the public. For, although the combustion of a corpse may be accomplished in a rapid, inoffensive manner, as far as disagreeable sights and smells are concerned, yet this would not always be so if no proper rules were formulated and observed in so important a matter; and the proximity of a crematory can hardly be contemplated with any other feeling than aversion. The sixty-fifth article of the Italian Burial Law, which directs "that crematory furnaces must not be erected without the walls of public cemeteries," is wisely followed by the law or custom of most countries.<sup>1</sup>

What are the objections to cremation as a form of burial? We consider the reasons *against* it rather than the reasons *for* it, because the latter are too obvious to need discussion. The chief objection is that mankind in Christian countries has for centuries preferred to bury its dead. CONSTANTINE strongly condemned the practice of cremation on religious grounds. NAPOLEON rejected it after mature deliberation. The fact that men have a prejudice in favor of burial, a prejudice to which they adhere with passionate hereditary instinct, is a positive objection to cremation. A scruple, regarded as pious and honorable, is no light thing. Men who are under the influence of this scruple will always find in cremation something unspeakably revolting, some taint as of impropriety or barbarism, some want of respect for the dead and for the religious feelings of the living. The practice, they will say, has been more frequent with barbarous than with civilized races. The savage and superstitious Carthaginians adopted it. It was an immemorial custom with the North American Indians; so, too, with the Druids. The great races of antiquity condemned it. The Jews and Egyptians practised it not at all; the Greeks but seldom.

Such prejudices, indeed, are wholly groundless. Yet, as long as public sentiment is of this mind cremation cannot be popular, cannot certainly be enforced by law.

The objections so frequently urged against cremation—its difficulty and expense, can scarcely be maintained now. In fact, the practice is not more difficult and more expensive than ordinary

<sup>1</sup> Prussia is an exception.

<sup>2</sup> *The Law of Cremation*, by Aubrey Richardson, Solicitor. London: Reeves & Turner, 1893.

Mr. Aubrey Richardson is a son of the admirable writer and physician, Dr. Benjamin Ward Richardson, F.R.S.

<sup>1</sup> Op. cit., pp. 104, 105.

burial. The United States Cremation Company (Limited), whose regulations deserve to be carefully studied, requires but an advance of \$35 for this purpose. A more important objection is that cremation may offer opportunities of destroying the evidence of crime. This objection, we are convinced, betrays a complete ignorance of the legal procedure of a cremation. For the law on this subject, the police regulations that everyone must observe where cremation is legally recognized, are much more efficient safeguards against crime and the concealment of crime than the regulations of ordinary burials. In England, where the practice of cremation is merely tolerated as not illegal, an enormous number of persons are annually buried without any medical certificate or inquiry whatever. In 1885 the number of these persons was 18,146; in 1886, 18,322; in 1889, 15,100. The number of exhumations ordered by the courts to detect poison has been less than one yearly. If cremation were universally adopted under the rules of the Woking Crematory, or better still of the Crematory Society of Zurich, such a state of things would be impossible.

The gist of the whole dispute between the advocates of cremation and their opponents seems to us this: Is cremation necessary in order to prevent the bodies of the dead from poisoning the living, and if so, when is it necessary? For obviously it is not needed in all cases and under all circumstances. In a country that supports but one person to the square mile it is not necessary. We should not think of enforcing it in the Highlands of Scotland, in Iceland and Scandinavia, or in Libya. What is the use of burning a dead body where there is no risk of contagion? The dead on the battlefield and the victims of a pestilence ought, we think, to be buried. When the population may be three hundred to the square mile we can easily imagine that cremation would be an admirable precaution. The purpose of cremation is, of course, to reduce a corpse to absolutely harmless ashes. The rapidity of the process, its completeness, too, recommends it. But though the combustion of a corpse is, beyond comparison, more rapid than its decay, yet the whole procedure of cremation is more complicated and requires more time than burial. Burial, indeed, is the most expeditious mode of sepulture. Under the law, a cremation can scarcely take place in less than two days, while a burial may be an affair of but a single hour. The point of chief importance is to remove

the corpse as a source of contagion as soon as possible. In what way is this better accomplished than by means of burial? But it will be said that the speedy removal of the corpse, though a stern necessity in times of epidemic and something to be thankful for at all times, is not sufficient, as the risk of contagion is always present until the remains are wholly incorporated in earth.

Whether the interment of the whole corpse is so noxious a procedure admits of reasonable doubt. A writer in the *Annales d'Hygiene*, of recent date, infers from the results of excavations in Europe that the old method of burying in graves and trenches is, after all, the best and safest way of disposing of the dead. The evidence shows that infectious diseases are not engendered in those places. The earth purifies like fire. A cemetery properly situated is not a source of disease and contagion. A cemetery is objectionable when, as in very populous districts, it occupies a disproportionate amount of space or too little space. The latter condition is by far the worst. For the vast cemeteries, so common now, are merely a needless encroachment upon the living, but a cemetery too small is so frequently tenanted as to become a vile and contagious spot.

We revert to a consideration, often hinted at in the course of this paper, namely, that cremation should be adopted wherever it is a plain necessity. It is necessary whenever cemeteries are objectionable for reasons just given; whenever, as in Germany they become (as COLERIDGE expressed it) places not more dangerous to health than to morality; and finally, it may be said that cremation is intrinsically better than burial, for, though burial is seldom dangerous, cremation is never so; though burial is expeditious, cremation may be accomplished at least as rapidly; and the procedure of a cremation is even more decorous, is directed by even wiser legislation than the procedure of burial.

#### THE FIRST PAN-AMERICAN MEDICAL CONGRESS.

As these lines are being written the First Pan-American Medical Congress, with its twenty-two sections, is in session at Washington. From the reports that we have thus far been able to gather the meeting promises to be a perfect success, even beyond the most sanguine expectations of its organizers. Of the fruit that shall be borne it is of course yet too early to speak, but naught but good can be the outcome. Too much praise cannot be given to

those upon whom devolved the onerous duty of organization, who have labored so earnestly and so faithfully, and who must find in the success of their efforts a source of immeasurable gratification.

## EDITORIAL COMMENTS.

*An Impartial Judgment of Homeopathy.*—The following quotation from the *Wiener medicinische Presse*, 1893, No. 30, p. 1202, must certainly be admitted as a dispassionate and judicial statement of the position of homeopathy, written without heat or partisanship, but in a spirit of actual fairness and honesty:

"The 2d of July marked the fiftieth anniversary of the death of Samuel Hahnemann, the founder of the 'homeopathic method of treatment.' In an article dedicated to the memory of Hahnemann, by L. Buechner, the distinguished author of *Force and Matter*, after an acknowledgment of Hahnemann's intellectual ability, it is stated that homeopathy is a suitable method of treatment for rich, indolent, nervous, egotistic patients, or such as have a dread of medicines, whose ills, great or small, disappear spontaneously, without medical treatment or with any form of treatment, and with whom the imagination acts as an important adjunct to the processes of nature. Homeopathy will therefore probably never entirely disappear, and is not to be denied a certain amount of credit, partly positive, partly negative. The patient believes that he will be helped by homeopathic remedies, and is really helped—partly in consequence of belief and partly by awaiting the natural outcome of his ailment during the continuance of the homeopathic treatment.

"In the hands of unprofessional persons prescribing their own homeopathic remedies, or in the hands of uneducated quacks, the method is capable of much harm, which it has doubtlessly accomplished in innumerable instances."

This judgment may not apply to the self-styled homeopathist who finds in sectarianism only a means to selfish ends. For him more drastic measures may be necessary; but if there be reputable men among so-called homeopathists, it is time for them to throw off their masks and repudiate a designation that among the discriminating has become a synonym for duplicity and false pretence.

*Rhus Toxicodendron.*—Apropos of the comment in THE NEWS of August 26, 1893, p. 248, we have received from Dr. John Aulde, of Philadelphia, a reprint of an interesting communication made by him to the *Medical and Surgical Reporter* for September 27, 1890, upon "The Use of *Rhus Toxicodendron*." Therein he points out the pharmacology, the properties, the physiologic effects, and the therapeutic applications of *rhus*. He advises the use of a tincture made according to the directions of the U. S. Pharmacopeia, from the fresh leaves gathered during the period of efflorescence. The dose ordinarily should not exceed half a drop three times daily. The drug is said to act as a cerebral stimulant and at the same time to possess the property of allaying the irritability of the sensory nerves. It is regarded as pos-

sessing also properties allied to those of an antiseptic, and has been found to act as an eliminant. The effects of lethal doses are said to be best antagonized by the exhibition of some preparation of lead. *Rhus* has been especially employed in the large and ill-defined group of diseases that are designated by the qualification chronic rheumatic, including arthralgias, myalgias, lumbago, wryneck, neuralgias, and other painful affections of uncertain nature. Hemorrhoids, varicose veins, and chronic cystitis, it is said, are usually promptly relieved by the exhibition of this drug. "In the treatment of erysipelas small doses seem to arrest the tendency of the eruption to spread, while the fierce character of the inflammation is subdued and the temperature and pulse fall. . . . The chronic varieties of skin-diseases respond most readily to this drug, and especially the scaly forms; but it is useful in all cases dependent upon an unhealthy condition of the digestive tract." Certainly a drug that has such valuable properties and such a useful field of employment as are claimed for *rhus* should receive more extended application than has hitherto been given it.

*The Noisome Noise of Unmusical Music.*—THE NEWS is delighted with the responsive Amen! in many lay and medical journals and from personal correspondents as regards its protest against the brutality of the noise-makers. It is a pity that we should end with protest only, and that legislative and police restriction cannot be made effective. Let everybody appeal personally and by letter to the proper administrative authorities and demand that illegal noises shall be stopped, and that those that are not absolutely forbidden shall be lessened. Medical societies should act as bodies and through committees to abate these nuisances. The hours for sleep should be kept quiet for the thousands of sleepers and not monopolized by the half-dozen brawlers and howlers. There seems to be a tacit understanding on the part of the police that anything that a South-sea Islander or an Oriental would call "music" must be sacred, no matter how execrable and ear-splitting the din or the bawling. The police of Philadelphia would not think of stopping a crew of drunken singing rowdies, a darkey band, a French-harp fiend, an organ-grinder, or an accordion monomaniac from committing his crimes against health, no matter if the iniquities are carried out in what should be the stillness of Sunday or of the night. The air-beaters and ear-bangers have it all their own way, and if a lot of well-to-do folk meet together to eat and chat, they set a worthy example by having a band to scrape and blow musical sounds that not a single diner listens to for a second and which forces him to roar and bellow at the top of his voice to make his neighbor six inches away hear a spoken word. "What you talk about is music, but what you like is noise," said a wise man to his pupil, and it is true here and to-day.

*Mental Suffering as an Element of Damages.*—We speak of physical suffering, and of effect upon physical powers, but no one would claim for a moment that the two things are identical. Physical suffering may exist and be an element of damage, and yet there be no impairment of the physical power to earn money; and the physical power to earn money may be greatly impaired and an element for substantial damage, and yet there may exist



no suffering whatever. True, the two, for a time, at least, after an injury are usually present together, but there is no necessary connection between them. The same is true of the mental domain. Mental suffering may exist, and the mental powers—that is, the power to exercise the mental faculties for the purpose of earning money or otherwise—be in no manner affected. On the other hand, the power to thus exercise the mental faculties may be impaired or destroyed, and yet there may be no mental pain. Mental suffering is a proper element of damages, and the impairment of mental faculties is also a proper element, when claimed and proved. So holds the Supreme Court of North Dakota in *Comaskey v. Northern Pacific R. R. Co.* (55, Northwestern Reporter, 732). But it says that in an action to recover for personal injuries, when there is no claim in the complaint or in the evidence that the mental powers of the person suing were in any manner impaired by the injury, it is error for the trial-court to instruct the jury that in estimating the damages that they may take into account the effect of the injury upon the mental powers.

**The Restoration of Hearing to the Deaf.**—By analogy with the good results obtained in other forms of loss of function from disuse, it seems reasonable to hope that in some cases of deaf-mutism it may be possible to restore some degree of hearing, as well as of speech, by means of acoustic exercises. The idea is not a new one, and was long ago acted on. Upon this line of thought URBANTSCHITSCH (*Wiener klinische Wochenschrift*, 1893, No. 29, p. 525) has made observations upon a number of deaf-mutes who by methodic exercise not only regained the faculty of hearing vowel-sounds, but also acquired the ability to hear and to repeat whole sentences. Some of the cases, upon first examination, appeared totally deaf, hearing neither through the air nor through the bones of the skull. The restoration of hearing to an apparently totally deaf person obviously implies that there cannot have been actual deafness, but only an inability to properly interpret acoustic impressions. A development of the auditory sense was equally a result of the exercises, sounds that were previously not at all heard being readily recognized and differentiated. The exercises consisted in indicating by sign or symbol the sound to be made or the letter to be spoken. As at times they proved quite fatiguing, they were at first given for half an hour, daily, subsequently for an hour, preferably without the use of a speaking-trumpet.

**Every Man His Own Physician** seems to be the motto of the self-druggers, a brilliant company that is wonderfully increasing in numbers. Nowadays every toper knows all about chloral or carries in his vest-pocket his own supply of "bromidia." Every soda-water fizz-fountain has its array of prepared drugs ready for customers who habitually ask for the peculiar "tonic," or "sedative," or "corrective" that they know so well about. The accommodating druggist or fizz-water drawer will supply any possible defects of knowledge (or ignorance) on the part of the self-prescriber and recommend anti-pains or germicides galore, for a few cents, to be washed down with the universal fizz-water. Every hysterical woman has her very peculiar "smelling-salts," her pain-deadener, nerve-sedative, or headache cure, self-prescribed,

*pro re nata* and *quantum libet* or *sufficit*. Sometimes the *quantum* is a little more than "*sufficit*," as in a recent case, in which, to "sober up," too much "bromidia" was taken, and the result was a sober-down into the grave. This reckless selling of dangerous drugs to Thomas, Richard, and Henry should be stopped. Medicine of the people, for the people, and by the people, is a dangerous sort of democracy.

**The Identity of the *Streptococcus Pyogenes* and the *Streptococcus of Erysipelas*.**—The morphologic resemblance between the pyogenic streptococci and the streptococci of erysipelas early suggested the possibility of their identity, but it was difficult to furnish the proof to substantiate such a belief. A case recently reported by KNORR (*Berliner klinische Wochenschrift*, 1893, No. 29, p. 699), of Berlin, would seem to furnish the necessary demonstration. The case was one in which in the sequence of an injury to the foot an abscess developed upon the thigh, and in the contents of which pyogenic streptococci were found. At a later date an area of erysipelas developed in the sacral region at the site of a small bedsore. The case terminated fatally, and after death examination of a bit of skin removed with suitable precautions from the erysipelatous area, disclosed the presence of streptococci that both in appearance and in behavior in cultures and upon inoculation were identical with those obtained from the abscess, while similar organisms could not be found in the healthy skin.

**The New Pharmacopeia** has been issued, and should be in the hands of every physician and pharmacist before the date at which it becomes official—January 1, 1894. We present elsewhere a brief account of some of the changes principally interesting to physicians. Pharmacists will find much more to study, perhaps to criticize. The Committee of Revision requests criticism and suggestion, which should be addressed to Dr. C. C. Rice, Chairman, Bellevue Hospital, New York. The work is a decided advance upon all previous publications, and has been brought up to the latest date possible while passing through the press. The Committee cannot be too highly praised for its promptitude and efficiency.

**Onychophagy** is the name given by a French physician to the morbid habit of nail-biting. He finds it very common among French school-girls—61 out of 207 in one school. Are the deformed finger-ends and nails so commonly seen a result of the custom?

## REVIEWS.

THE PHARMACOPEIA OF THE UNITED STATES OF AMERICA. Seventh Decennial Revision (1890). By Authority of the National Convention for Revising the Pharmacopeia, held at Washington, A. D. 1890. Official from January 1, 1894. Published by the Committee of Revision. Philadelphia: J. B. Lippincott Company. Agents: P. Blakiston, Son & Company. 1893.

THE new Pharmacopeia is a thoroughly good book. The Committee of Revision and the printers have both done well their respective shares of the work of prepara-

tion and issuance of the new standard, and they, as well as the profession, are to be congratulated alike on the accuracy and the neat appearance of the official volume. The preface gives clearly and succinctly an account of the principles guiding the Committee in its work, and indicates what changes have been made in the text. Lists of changes of titles and of articles added and dropped, and the various tables of chemic data, add to the usefulness of the work. The determination not to admit articles that can only be made by a patented process, or names in which a proprietary right is claimed, shows that in any truly representative medical or pharmaceutical body right principles still prevail. The metric system has been adopted in the text, solids being prescribed by weight, and liquids, except in certain instances, by measure. The substitution of the ordinary chemic nomenclature for the cumbersome and obsolete system of former Pharmacopeias, *e.g.*, "sodium phosphate," instead of "phosphate of sodium," is to be commended. The Committee has done wisely, however, in retaining the respective adjectives in the Latin and English titles of mild mercurous chlorid and corrosive mercuric chlorid, yellow mercurous iodid and red mercuric iodid, etc. The change from *green* to *yellow* in designating the protiodid is an improvement without danger. We regret that the Committee did not decide to adopt the new spelling of chemic names advised by the American Association for the Advancement of Science. Some orthographic changes have, however, been made. Arsenium becomes arsenum; aluminium becomes aluminum, and their derivatives are correspondingly altered in Latin and English. Creasotum is changed to creosotum. The terminal "e" is retained in the spelling of oxids, chlorids, chlorin, iodine, etc., and in the names of alkaloids, to distinguish them from the so-called neutral principles. This is a disappointment to us.

In addition, erythroxylin becomes coca, brayera becomes cusco in Latin and kouso in English, thus making the ordinary and official names the same. Other changes of official titles indicate change or greater strictness in the preparation. Thus, æther fortior becomes æther, and chloroformum purificatum becomes chloroformum, the dropping of the adjective indicating that the commercial preparation is no longer recognized in either instance. Aloë becomes aloë socotrina, and aloë barbadensis is added. Extractum belladonnæ foliorum alcoholicum and extractum belladonnæ radice fluidum replace the shorter titles of 1880. Gossypium becomes gossypium purificatum. Viburnum becomes viburnum prunifolium, and viburnum opulus is added. The entire class of abstracts is dropped; wisely, we think. Of the mixtures not dropped, that of ammonium and iron acetate becomes a solution (Latin, *Liquor*), and those of ammoniacum, almond, asafetida, and chloroform become emulsions (Latin, *Emulsa* [um]). While adding this class (emulsions), an official emulsion of cod-liver oil would have been in place. Aqua hydrogenii dioxidi becomes official as a 3 per cent. (about ten-volume) solution, slightly acid. The penultimate *i* should have been dropped, as in arsenum and aluminum.

Among other important additions are acetanilidum, aloinum, aspidosperma, cocainæ hydrochloras, convallaria, strophanthus, salol, naphthol, hyoscina hydro-

bromas, eucalyptol, pepsinum (digestive strength 1 : 3000), pancreatinum, petrolatum liquidum, rhamnus purshiana, sodii nitris, spiritus glonoini, sparteinæ sulphas, and the salts of strontium. In all, eighty-eight new articles have been introduced, and ninety of those previously official have been dismissed. The word official, too, is recognized in place of officinal, a reform long contended for by Bartholow.

We regret not to see ethyl iodid, bromoform, trichloroacetic acid, ozonic ether, quinin and urea hydrochlorate, guaiacol and its salts, naphthol benzoate, quinin salicylate, cinchonidin salicylate, and bismuth salicylate among the additions. An official preparation of peptones, an official preparation of carica papaya, an official albuminate of iron, an official preparation containing iron and a salicylate, an official syrup of hypophosphites containing strychnin, are desiderata not yet supplied.

In conclusion, we must again express to Dr. Rice and his associates our high appreciation of the thoroughness and scientific accuracy of their work—a work of which, while all of us reap the benefit, but few realize the labor.

A MANUAL OF DISEASES OF THE EAR. By GEORGE P. FIELD, M.R.C.S., Aural Surgeon and Lecturer on Aural Surgery, St. Mary's Hospital Medical School, London. 8vo, pp. 391. Philadelphia: Lea Brothers & Co., 1893.

THE most apparent merit in this volume is the excellent colored plates illustrating the normal and pathological appearances of the aural fundus. All are shown as viewed through the speculum, with the latter in its proper position, and are about the best that have yet appeared in any book on the ear, and almost the first seen by the reviewer which are of real value to students.

The anatomy, physiology, and physical examination of the organ of hearing are ably discussed in the earlier chapters of the work, the remaining sixteen sections being devoted to the diseases of the ear.

Osseous tumors of the meatus are very fully discussed, and the best methods of operation ably described—the chapter being one of the best on this subject; a large number of cases are reported in detail.

The weakest part of the book is that devoted to catarrhal and suppurative inflammation of the middle ear, the treatment advised being, for the most part, very old-fashioned, crude, and not well suited to American patients, however it may act on an English clientèle.

Aural polypi are well described, and especially well illustrated, and the treatment recommended is well up to date.

The therapeutics of tinnitus aurium is treated of in less than two pages, and it is not equal in value to the major part of the volume.

Taken as a whole, the book well deserves a prominent place in the library of every aurist, and will be found particularly valuable by the young student in aural pathology and diagnosis. As is the case with so many works written by European specialists, the treatment advised must, however, be largely modified by American methods in order to secure the best results in our climate.

**STRICTURE OF THE URETHRA.** By G. FRANK LYDSTON, M.D., Professor of the Surgical Diseases of the Genito-urinary Organs and Syphilology in the Chicago College of Physicians and Surgeons, etc. Chicago: The W. T. Keener Co., 1893.

THIS volume is based on a course of class-room lectures delivered by the author, the aim having been to produce a practical work rather than one complete in the history of the many phases through which urethral surgery has advanced to its present position. It is designed for the general practitioner and student rather than for the andrologist.

The first chapter is devoted to a study of the anatomy of the urethra, which is essential to a clear understanding of the pathologic conditions that affect this structure. The author dwells with commendable emphasis on the necessity for asepsis in urethral work. There is no doubt but that in the past lives have been lost by indifference in this particular, but this should not occur now that the value of "surgical" cleanliness is so fully established. The subjects of spasmodic, inflammatory, and congestive stricture have been simplified by considering them usually as complications of organic stricture. These the author calls *plus conditions*; they must be removed by appropriate measures before the treatment of the true stricture can be satisfactorily continued. We think that Dr. Lydston gives a very fair estimate of the value of electrolysis in the treatment of urethral stricture. He has demonstrated his thorough familiarity with the subject upon which he writes. The treatment recommended in the different varieties of stricture is in accord with that taught by the foremost of our conservative specialists, and may be followed with the confidence that it is the best at our command in the present state of knowledge. The book cannot fail to be of value to those engaged in this line of work. A few typographic errors and a mistake in numbering some of the cuts have escaped the proof-reader, but these do not detract from the merit of the text.

## CORRESPONDENCE.

### IMPROVED PLASTER-OF-PARIS JACKET.

To the Editor of THE MEDICAL NEWS,

SIR: In THE NEWS of January 21, 1893, p. 70, there appears an article under the caption of "Plaster-of-Paris in Orthopedics," by Dr. A. J. Steele. In speaking of the use of plaster in the treatment of Pott's disease, Dr. Steele employs the following language:

"Usually the plaster jacket is made to extend above not higher than the axillæ; but if the disease is in the cervical or upper dorsal region, more thorough support can be obtained by carrying the bandage above the shoulders, like a vest. *I cannot say whether or not I was the first to adopt this plan, now some twelve years since* [italics mine], but certainly support for three or four additional vertebrae can thus be had; and with the disease in the cervical region the bandage has been carried still higher, up the back of the neck and around the head. To additionally strengthen the jacket I fortify it with strips of galvanized-wire gauze, the size and strength of the strips depending upon the age of the patient; the

corners are cut off and the edges bound with sticking-plaster. The plaster is better incorporated with the gauze than with perforated tin."

It is with the intention of relieving Dr. Steele from the doubt as to whether he or someone else was "the first to adopt this plan," as well as for the benefit of those of your readers who are interested in this subject, that I make this communication.

I quote from a paper of mine published in the *St. Louis Courier of Medicine*, December, 1880, under the title "Improved Plaster-of-Paris Jacket, or 'Cuirasse' for Posterior Spinal Curvature in the Middle and Upper Dorsal Regions":

"In 1876, while attending Mrs. W., she asked me whether I could not do something for her son (six years old) who was the subject of posterior spinal curvature (2d to 6th vertebra) and who had been for some time under the care of various physicians and surgeons without receiving much, if any, benefit." As this was out of my line of practice (gynecology) I recommended Dr. Louis Bauer, the well-known orthopedist, who, after exhausting every known means for eighteen months stated to me on May 3, 1878, that unless some new means was devised the treatment would prove to be a failure. This, to my great disappointment, I had observed long before, and explained to Dr. Bauer the principle of the cuirasse that I had mentally devised for this patient while observing the failures and imperfections of the apparatus tried, including Sayre's. The plan was adopted and the apparatus applied with success.

"The 'cuirasse,' or vest, as Dr. A. J. Steele calls it, may be made, like Sayre's jacket, of other material, or of plaster-of-Paris rollers and strips of tin or veneering. The patient being suspended and provided with a thin, tightly-fitting undershirt, as directed by Dr. Louis A. Sayre, rolls of cotton or folded cloth are stitched to the undershirt on either side of the curvature. The bandage is applied first by a few circular turns around the chest, sufficiently tight to prevent the respiratory motion of the ribs, then obliquely across the shoulders so as to immobilize the clavicles and scapulae. This is continued by means of an occasional reverse of the roller until the entire chest is covered, reaching down behind to the twelfth dorsal vertebra, from thence along the lower border of the ribs and costal cartilages to the inferior extremity of the sternum, and above from the vertebra prominens, along both sides of the neck to the upper border of the sternum in front, thus covering the thorax completely as by a shell. This bandage, when tightly applied and allowed to harden before the suspension is interrupted, will keep up every advantage gained by the suspension, since on account of its tight application it sustains the chest rigidly in the shape thus given to it. Respiration is henceforth altogether abdominal. The diseased vertebrae are free from pressure, and undisturbed by the motions of the loins and head, and by the fixation of the shoulder-blades and clavicles, of those of the upper extremities. They are also pressed as nearly as possible in a line with their healthy neighbors without pressure on the prominent spines, because of the lateral pads; their healthy parts sustain the weight, while the diseased bodies of the vertebrae are left free and unencumbered. Thus the 'cuirasse' is to



the chest as solid and complete a splint as ever was applied to any single fractured bone.

"The necessary exercise for the maintenance of the general health is greatly favored by it on account of the perfect freedom of all the customary motions. When the patient is dressed it is so nearly invisible that none but those initiated will notice its presence. . . .

"A new bandage was applied July 12, 1878, but in consequence of the inferior quality of plaster accidentally used, the apparatus soon crumbled, and accordingly a new one was substituted on August 2d. Dr. Bauer being out of the city at the time, Dr. A. J. Steele was called in for that purpose, and the apparatus now for the third time successfully applied. As the child was to be removed for the hot season to the North, his parents desired that the splint should be fixed so that they could easily remove it, should necessity require it. To meet their wish, I cut it open over one (the left) shoulder and down on the same side, breaking the plaster with a dull knife and hammer by gentle blows on the opposite shoulder and side, so as to make the remaining cloth act as a hinge, then separating the cut edges made the boy, his right arm extended horizontally, step out of the shell to the left. Along the cut edge, over the side and shoulder I had buckles and straps attached."

As this device has certainly done much good in an otherwise almost incurable class of cases, I may be excused for objecting that others should claim its invention.

Respectfully,

EUG. C. GEHRUNG.

ST. LOUIS, MO.

#### PLASTER JACKETS.

To the Editor of THE MEDICAL NEWS,

SIR: In reply to the communication of Dr. Eugene C. Gehrung, the advance sheets of which you have kindly submitted to me, I would say that I gladly accord to the doctor his claim of originality and priority in the splint which he calls the "cuirasse."

When I made the remark which in the quotation is italicized, I did not have in mind the "cuirasse," which finds its limit below with the line of the ribs and sternum, but to the long jacket, which extends downward as far as the flexure of the thighs, and which does include the abdomen—an entirely different appliance from the former—one covering the chest only, and the other the whole body. It was this long splint also I had reference to in my article read before the Missouri State Medical Association, May 22, 1878, and published in its *Transactions*, p. 18, from which I quote: "With the disease in the upper dorsal region, additional support may be gained by passing the bandage (plaster) obliquely over the shoulder"—which statement, as far as I know, is the earliest published reference to the matter.

In my paper on the "Uses of Plaster" I did not make mention of the gypsum "cuirasse," but I would gladly do so now if not too intrusive. For several years I faithfully tried the short "cuirasse" in upper dorsal disease, but being greatly disappointed in the results, I discontinued its use and have not employed it for many years.

I especially remember one case of Pott's disease in the upper dorsal region, in which I firmly applied the bandage to the chest, and obtained such support that the

little fellow continued active in his sports. However, after a few months had passed, symptoms of spondylitis in the dorso-lumbar region developed, a boss appeared, and later paralysis. I always believed that if the first support had included the whole spine the lower projection would never have appeared.

If one wishes to thoroughly immobilize a diseased joint, it were best to fix the contiguous joints as well; so in inflammation of the vertebrae, the fixation should include as much of the spinal column as possible, at least the parts adjacent to the disease. In my case referred to, the thoracic vertebrae were made firm, while the lumbar were unduly movable; so that traumatism readily occurred at the junction of the two in the dorso-lumbar region, just as the bent fishing-rod breaks at the ferrule, or the axe or hammer handle breaks where the wood enters the steel.

So, in Pott's disease I am not using the short "cuirasse," and I use the long plaster jacket only occasionally. Both of these splints are intended as portable appliances. I have come to believe that we get better results and less deformity in the treatment of this disease by recumbency, combined with immobilization, and possibly traction, than in allowing the patient to be up and about with the superincumbent weight pressing upon the diseased bones.

Respectfully,

A. J. STEELE.

ST. LOUIS, MO.

#### COMMON-SENSE SURGERY VS. "ANTISEPTIC SURGERY."

To the Editor of THE MEDICAL NEWS,

SIR: There has been so much written on the subject of antiseptic surgery, that it is only with a word of apology that the present communication is added to the list.

Old methods of operating, with dirty instruments and surroundings, were bad. After a time surgeons found out that, generally speaking, dirt and primary union were incompatible, and that dirty hands and instruments meant pus. They reformed, and, as is the rule in reforms, went too far—were not satisfied with simple cleanliness, but must needs have hyper-cleanliness. Lately they have come to see that it is not absolutely necessary to numb one's fingers with carbolic acid or to drench (often poison) one's patient with bichlorid in order to obtain a good and successful result. I am told that latterly such has been the drift of opinion, though, unfortunately, I have been rather out of the track of civilization, and where but little current medical literature was obtainable, and if ground already gone over is treasured upon, let this be my excuse.

The causative reason for this paper is the faint hope that perhaps a word, the result of practical experience, may be of some trifling value. It is not intended to be a scientific dissertation on the subject from a theoretic standpoint.

I left this country to practise in Honduras at a time when the prominent surgeons who were not carried away with the idea of (if the word may be used) hyper-antiseptics were the few and far exceptions, and I, for a time, went with the crowd, conscientiously numbing my fingers and cauterizing my hands in wild efforts to be antiseptic, and to get the patient into a similar much-to-be-longed-for condition. No matter what precautions

were taken, no matter how much washing and scrubbing were done, results were not always satisfactory. I finally concluded that I would discard carbolic acid and mercuric chlorid, and see what results were obtainable under a régime of simple cleanliness of instruments, hands, dressings, and patient, so far as soap and water would go. Instruments before being used were cleansed with 95 per cent. alcohol. In Honduras the field for experiment is practically unlimited and material very plenty. The results were most gratifying, and certainly no worse than formerly, to say the least. A series of as nearly as possible parallel cases was determined upon and carried out, in the course of which one hundred wounds of all sorts, from a simple scalp-wound to an amputation of the thigh or abdominal section, were treated. In fifty water only was used and in fifty all possible "antiseptic" rules were followed, including cleaning and boiling the instruments and soaking them in 5 per cent. carbolic acid solution, cleansing hands and wounds with 1:2000 bichlorid, and, in cases of abdominal section, washing the abdomen with 1:10,000 bichlorid solutions. These comparative results were decisive. In almost every instance the plain, clean-water treatment was followed by the most satisfactory result, and the reason did not seem to be difficult to find in the cases in which the wounds were closed and union between two raw surfaces was desired.

To my mind it is clear that an "antiseptic solution" of sufficient strength to do any good at all on the lines claimed for it as a germ-destroyer, must be strong enough to quite effectually kill the superficial layers of cells on the surfaces to be approximated, so that when they are brought together for union there is not the simple placing in contact of two raw surfaces, consisting of live cells, as is the case when harmless water is used, but between the living tissues of the flaps is a layer—or, rather two layers—of destroyed cells, which must be absorbed before the healthy tissues on each side can be joined by the new scar-tissue. Germs there will be, but they do no harm, as has been conclusively shown over and over again, unless they are of a virulent septic variety, and then they have been introduced upon the hands or unclean instruments of the operator.

In considering open wounds, when the result desired is a healing by granulation, the condition is just the reverse, and I have found swabbing out with carbolic acid solution (50 per cent.) to be an exceedingly valuable procedure. It is painful, to be sure, but what do we get? All germs are emphatically destroyed, not only on the surface, but for an appreciable depth below, and, in addition, there is left a thick covering of destroyed tissue, under which granulation may commence and get a healthy start before the covering has sloughed away.

In the treatment of uncomplicated gunshot wounds, "flesh wounds"—wounds of the soft parts only and not involving any large artery or vein—this 50 per cent. carbolic solution is extremely useful. The wound is thoroughly cleansed and the surfaces agglutinated. The cauterized tissue does not slough, except near the extremities of the canal, but is absorbed, and healing ensues with less discomfort and less pus than when the strong carbolic is not used. The method I have employed is very simple. An eyelet-probe, long enough to pass

through and leave the eyelets projecting, is introduced and threaded with a narrow strip of gauze or unbleached muslin, the ravellings having been carefully removed. This cloth is saturated with the strong carbolic and drawn through the wound. In long gunshot wounds (say, six or eight inches), when tardy healing and much sloughing result, the cause is often found in a relaxed, sluggish condition of the tissues, which, when a proper stimulant is applied in the form of strong carbolic, is overcome.

Respectfully, PHILIP MILLS JONES, M.D.,  
BROOKLYN, N. Y. Ex-Surgeon-General, Army of Honduras, C.A.

#### STENO, STENSEN, STENSON, STENON, OR STENONIS?

To the Editor of THE MEDICAL NEWS,

SIR: The trend of modern medical literature seems to be in the direction of a multiplication of names for certain processes, operations, etc.—a fact to be deplored, as tending to confuse the student. My attention was called to this subject the other day by a question in anatomic nomenclature. I was taught to call the duct of the parotid gland "Steno's duct," my understanding being that it was so named on account of having been discovered by the Danish anatomist, Nicolas Steno (1638-87). Upon the use of this term the question was asked whether it should be "Steno's" or "Stenson's" duct.

Turning to the latest edition of Gray's *Anatomy* I find that the organ is there named "Stenson's duct," and the American editor adds that it is "more commonly, but less correctly, called 'Steno's.'" In looking up other authorities I find opinion to be divided, although a majority uses "Steno." Billings' *Dictionary* says "Steno" is used in error for "Stenson," while the *Index-Catalogue of the Library of the Surgeon-General's Office* gives "Stenon [or Stenonis] (Nicolaus) or Stensen (Niels) [1636-86]," and a little lower down comes the title "Stenon's duct." Is there any way of telling which is the proper name of the organ?

Respectfully, DANIEL W. NEAD.  
PHILADELPHIA.

To our inquiry the learned Librarian of the Surgeon-General's office, Dr. John S. Billings, U. S. A., has kindly replied: "The man's real name was Niels Stensen, but he Latinized this into Nicolaus Stenonis, and in one work into Stenonius. By his contemporaries he is usually referred to as Stenon. I do not think that the lack of uniformity is anything very serious; but if there must be uniformity, the name should be either Stensen, Stenon, or Stenonis. Steno has no good authority for it whatever, and he never signed his name in that way."

[This would seem to settle the disputed spelling, and plainly indicates that STENSEN is the correct form. It were certainly better to have uniformity, and though not alarmingly "serious," the question is of moment at least in cataloguing, indexing, etc.—EDITOR OF THE NEWS.]

M. W. Vignal, D.Sc., a distinguished French scientist, has died. He was one of the collaborators of M. Malassez, and had made valuable studies in histology, fermentation, and tuberculosis.

**BEE-VIRUS FOR ACUTE RHEUMATISM.**

To the Editor of THE MEDICAL NEWS,

SIR: The following extract appears in the *Bulletin* of the Division of Entomology of the Department of Agriculture (vol. v, No. 5):

"Mr. John Worthington, United States Consul at Malta, has sent us a clipping from the *Malta Standard* of April 11th, which states that the theory that the virus of the bee-sting is an infallible remedy for acute rheumatism has received most unquestionable confirmation from the practices of the country people in Malta. Bees are said to be plentiful on the island, and the virtue of the sting as a cure for rheumatism has been long established. It is, in fact, said to have been a common practice for generations past to resort to this remedy in all severe cases, the results being most favorable."

If the foregoing statement proves to be true, and the same virtue dwells in the virus of the sting of the surprisingly active bee of our country, will not some of our brethren who dwell in the rural districts give it a practical test and supply the cities with the article!

Very truly yours,

JAMES WOOD, M.D.

BROOKLYN, N. Y.

**SOCIETY PROCEEDINGS.****FIRST PAN-AMERICAN MEDICAL CONGRESS.**

Held at Washington, D. C., September 5, 6, 7, 8.

**GENERAL SESSION.****FIRST DAY—SEPTEMBER 5TH.**

THE RIGHT REVEREND WM. PARET, D.D., Bishop of Maryland, offered prayer.

The President of the United States, GROVER CLEVELAND, officially opened the Congress. He said:

"The part assigned me on this occasion admits of but few words. It, however, affords me the opportunity to say how pleased I am to be in any way related to an assemblage such as this, called together in furtherance of the highest and noblest purposes and designs. I hope I may also be permitted to add that the protection of the public health and the prevention of contagious diseases are objects properly brought under consideration at the capital of a nation which appreciates fully the serious importance of everything which aids in making intercourse between civilized countries and commerce between them safe and easy. It is also fitting that those who devote themselves to saving human life and the alleviation of human suffering should consider the modes of reaching these beneficent ends at the seat of a government whose greatest regard is the welfare and happiness of the individual citizen. It only remains for me to declare this Congress of the Pan-American Medical Society open for the transaction of the business which has called it together."

HON. JOHN W. ROSS, President of the Board of Commissioners of the District of Columbia, delivered an address of welcome. He said:

"The District of Columbia has entertained many distinguished public gatherings, but it has never known such a one as that which I now have the honor, in the

name of the local municipality, to welcome to the national capital.

"For the first time in the history of the new world there are assembled in one of its capitals representatives of one of the oldest and most honored of the learned professions from all of the Americas.

"It is fitting that in the District which derived its name from that of the great discoverer, and that in the year set apart as the one in which the nations may do honor to his memory, the governments whose existence was hastened by the results of his genius and daring should send their representatives to a Pan-American convention.

"It is in keeping also with the spirit of the age which has prompted this gathering of representative men that the delegates so convened should meet not for individual or national aggrandizement, but for the loftier purpose of extending the range of medical knowledge, and for the alleviation of human suffering throughout the world.

"To a profession as progressive as that of medicine and surgery the results of such a conference cannot be over-estimated.

"When we consider the vast area of the surface of the globe here represented, the infinite variety of racial characteristics, of climatic conditions, and of all environments affecting health and disease, we can understand that such interchange of observation and experience was never before made possible.

"What may not be accomplished by all of the forceful men from all the governments here represented, by plans for the establishment and for the enforcement of international quarantine regulations, and for international coöperation against the spread of infectious and contagious disease?

"The municipal authorities in many of the cities of the United States are now endeavoring to locate hospitals for the treatment of contagious diseases near enough to the centers of population to avoid the dangers incident to a long transportation of patients affected with such diseases, and near enough to be within the range of a water-supply and of adequate sewerage facilities.

"It is the common experience of all who are charged with such responsibility that the dread occasioned to those who reside in the vicinity of the proposed locations assumes almost the proportions of a panic.

"If the position maintained by many eminent physicians be correct, that such hospitals if properly conducted are not likely to be the means of communicating disease to those residing near them, the public mind should be relieved of its needless apprehension, and if this great body of experts should deem the matter worthy of its consideration there can be no doubt that an authoritative expression of its views would do more than could be hoped for from any other source to educate the public mind upon this subject."

DR. WILLIAM PEPPER, the President of the Congress, then delivered an informal address upon the purposes of the Congress. The program, he said, exemplified the peculiar constitution of this body. The invitation extended by the United States had been cordially accepted by every country. As a part of the proceedings of each general session representatives of different countries would be called upon. This Congress represented the medical profession of the western hemisphere. This Congress, it



was hoped, was but the first of a series of congresses that would consider questions of such great moment to every country. They called this congress Pan-American, according to recent usage. Why not American? Are they not all Americans? He would be happy to see, as the result of a few such congresses, this Pan-American Congress merged into the American Medical Association, whence it had its origin.

DR. JOHN C. PHILIPPO, President of the Legislative Council of Jamaica, who was present as a delegate, made a brief address.

HON. J. B. MCCREARY, of Kentucky, made some remarks, in the course of which he pledged his aid in securing desirable medical legislation.

DR. F. MONTIZAMBERT, of Quebec, next spoke briefly as the representative of British North America. He urged coöperation on the part of the nations in sanitary works and in guarding against the spread of disease.

DR. JUAN J. ULLOA spoke as the representative of Costa Rica.

DR. J. N. HIBBARD, of Indiana, President-elect of the American Medical Association, made a short address and extended a cordial invitation of attendance at the next meeting of the Association, to be held in San Francisco in June next.

DR. CHARLES A. L. REED, of Cincinnati, the Secretary-General of the Congress, made an informal report upon the work of organization.

DR. S. S. ADAMS, the Chairman of the Local Committee of Arrangements, briefly recounted the work that had been done in preparing for the Congress, and spoke of their indebtedness to Senator Gorman for having secured action from Congress granting an appropriation for the entertainment of the Congress. He then explained in detail the arrangements made for the entertainment of the Congress and the arrangements for the meetings. In concluding, he expressed words of welcome in behalf of the members of the medical profession in Washington.

PROFESSOR FRANCISCO A. RIZQUEZ, of Caracas, Venezuela, delivered an address upon "The Relation of the American Flora to the Practice of Medicine."

#### SECOND DAY—SEPTEMBER 6TH.

DR. AUGUSTE COMEAU, of Haiti, delivered an address in French; DR. MENDIZABEL, of Orizaba, Mexico, spoke in Spanish.

DR. MANUEL A. MUNIZ, Surgeon-General of the Army of Peru, and DR. PEDRO LAGLEYZE, of the Argentine Republic, both spoke in Spanish.

DR. PLUMMER, of San Francisco, Chairman of the Local Committee on Arrangements for the next meeting of the American Medical Association, pointed out the advantages and attractions of his city and State for the projected gathering.

The formal address of the occasion was then delivered by PROF. RAFAEL LAVISTA, M.D., of the City of Mexico, the leading surgeon of that country, on "The Surgical Treatment of Cases of Gangrene."

PRESIDENT PEPPER announced that he had been requested to present a resolution, for reference to the International Executive Committee, as follows:

"In view of the importance of taking the necessary steps to insure the prosecution of the great continental

work of the Congress, the International Executive Committee is hereby empowered and requested to appoint suitable international committees on the subjects of proper Governmental recognition of State preventive medicine, on uniformity in American pharmacology, and on medical education."

The following resolution was referred to the International Executive Committee, to be referred by it to the proper sub-committee for action:

*Whereas*, in the language of a British journalist, "greater energy and more systematic administration are much needed in regard to the sanitation of India, and England's imperial responsibilities in this matter are very heavy;"

*Whereas* the question has been asked in Austria, Russia, and France, "You English have, by your sanitary improvements, prevented cholera from gaining a foothold in England, why do you not attack it in its birth-place and prevent it from spreading into life in India?"

*Whereas* this question has been asked in America: "Why should the whole civilized world be allowed to suffer through the constant dread of invasion or invasion itself of cholera on account of the religious fanaticism of the Mohammedans of the East?" Therefore, be it

*Resolved*, That we respectfully recommend to her Imperial Majesty's Secretary for India these recommendations:

1. An imperial sanitary department attached to the Government of India.
2. A provincial sanitary department attached to each of the provincial Governments.
3. A local sanitary department.

*Resolved*, That the Secretary-General of this Congress be directed to furnish a copy of this to her Imperial Majesty's Ambassador at Washington, to be forwarded to Lord Kimberley, her Majesty's Secretary for India.

The following resolution was reported from the Section on Hygiene, indorsed by the Section on Railway Surgery, for the action of the whole Congress:

*Resolved*, That in the opinion of the Section of Hygiene, Climatology, and Demography of the Pan-American Medical Congress, the interests of the public health in every country should be and must be entrusted to a Department of the Government especially charged with their administration, and that while the precise form of administration may be left to legislation, the indispensable requisites are that it shall be national, that it shall have parity of voice and influence in the national councils, that it shall have independent executive authority under the limitations common to other Departments, and that it shall be intrusted to educated and experienced medical men, who alone are competent to assume its responsibilities.

The resolution was referred to the International Executive Committee.

In the afternoon the delegates and their families were formally received by President Cleveland.

In the evening DR. WILLIAM PEPPER, the President of the Congress, delivered an address, in the course of which, among other things, he pointed out that "this Congress represents much more than our common interest in medical science and the common feeling of brotherhood which animates the entire profession. It is—indeed, it always has been, and forever may it so continue—the glory of

the medical profession that their allegiance is one and undivided, for their service is solely in the cause of truth and humanity. Dynasties have risen and crumbled; the map of the world has been changed times almost without number; but the march of medical science through the ages has been ever onward and upward toward those lofty goals—the prevention of disease, the relief of suffering, the improvement of the race.

"The history of European medicine for more than three hundred years is a record of which we may well be proud, when the enormous obstacles to progress are held in view. But it is sad to reflect on what has been done as contrasted with what might have been. The dense ignorance of rulers and masses on scientific questions, the slow progress of sound, useful education among the people, the huge claims of imperialism and of militarism, the wanton waste of luxury, have retarded research, have left but paltry sums available for the diffusion of knowledge, have hindered the embodiment in legislation and in actuality of much that would help the healing of the nations. It is an odd commentary on the vaunted civilization of to-day to contrast the sums doled out by the most enlightened Governments of Europe for the promotion of higher education and original research or for the suppression of preventable diseases, with those lavished on the vast hosts of armed men and the huge fleets of unwieldy armored ships deemed necessary for the maintenance of peace and order.

"Among the results which may be anticipated from this meeting is, I trust, the adoption of some well-considered plan for systematic conjoint study of our American remedies and their pharmaceutical preparations, looking to their scientific classification, to greater uniformity in their preparation, and ultimately to a single pharmacopeia for the entire continent.

"Everyone knows now how superfluous it is to say a word in defence of American literature, and certainly we who know how powerfully the opinions and practice of medical men in Europe and throughout the world are influenced by American writings may view our position with some complacency. Yet a survey of what America is actually contributing to medical literature shows clearly how far we are behind the nations which lead in medical thought.

"The apparently extraordinary number of medical journals in America is due chiefly to a substantial reason, and one which influences equally the existence of very numerous medical schools and medical societies. The vast extent of territory and the relatively sparse population render it impossible to serve the country with as low an average of medical men, schools, societies, or journals as is possible in more densely-populated countries. As to other and less satisfactory reasons which have operated, especially in the United States, to produce a great growth of ill-equipped medical schools and of poorly-supported medical journals it is not necessary to speak here. Indeed, the rapid rise in the standard of scientific requirements, both of medical men and medical literature, and the increasing appreciation on all sides of the fact that the higher medical education is the true interest both of the profession and of the public is accomplishing the much-needed work of checking the ill-considered establishment of new medical enterprises

and of stimulating those in existence to more earnest life and more lofty aims.

"So true is this in regard to our medical journals in particular, that no one who has occasion to consult regularly the files of any number of them can fail to have been struck forcibly with the steady and decided improvement in the tone of their management and in the scientific quality of their contents.

"This Congress meets at a period of peculiar and critical interest in medical education, and I am glad to say that for the first time in the medical history of the United States we may feel proud to have such a meeting convened here, and to invite a close examination of our educational standards and facilities. I should fail in courtesy and in candor alike were I not to acknowledge the great value of the example which has been so consistently set by Latin-America and by Canada in the maintenance of a high standard of qualifications for medical practitioners.

"Fifteen years ago the medical profession of the United States arraigned severely the management of their over-numerous medical schools.<sup>1</sup> While Canada then exacted a reasonably strict entrance examination and a course of medical study extending over four years, with one session of six months in each year, and while every country in Latin-America exacted a collegiate degree or a rigid entrance examination, and a course of medical study extending over six years, it was the general custom with the medical schools of the United States to grant a diploma conveying the full right to practise medicine to applicants who had been admitted without preliminary examination, and had attended without term examinations two courses of lectures covering about five months, and had passed a single and final examination conducted by their own teachers, whose emoluments were derived solely from the fees of such students. This discreditable prostitution of a great educational trust had been gradually brought about by large causes upon which I may not now comment. But it is with justifiable pride that we may point to the admirable and sweeping reforms that have since been instituted. It remains true that the laws of many of the States allow charters for medical schools to be secured without any guarantee of the standard of education that shall be maintained. But the awakened sentiment of the profession and of the community has in a rapidly-increasing number of the States insisted that medical graduates before being admitted to practice shall pass a State examination conducted by an impartial board of examiners appointed by the Governor. The medical schools, to their honor be it proclaimed, have, with few exceptions, been foremost in the struggle to secure this wise and beneficent legislation. They have done much more. In advance of these laws which will insure a far higher standard of medical qualifications in the States fortunate enough to be so protected, the faculties of a number of the leading schools have forced their standard up at first to three years of obligatory study, and now to four years of eight months' study each, with a carefully-graded curriculum and with strict examinations before entrance, at the close of each term, and finally before graduation.

<sup>1</sup> Regular schools, 65; Homeopathic, 11; Eclectic, 4; total, 80 in 1877.

"When we recall that this has been done without the slightest governmental aid, and, further, that owing to the prevalent view that medical schools have been sources of large profit to their faculties the streams of private benefaction had not yet been directed in their favor, you will appreciate the high sense of duty and the devotion to science which have led these faculties to assume greatly increased labors with an expectation of considerably diminished remuneration owing to reduced attendance of students and to augmented expenditures.

"The Committee of Arrangements of this Congress has wisely provided for a tour of inspection of some of these institutions. It is trusted that all of our foreign delegates, and as many as possible of the members of this Congress, will avail themselves of this opportunity to examine the equipment of some of our leading medical schools. They will be gratified to find, in hospitals, in laboratories, and in libraries and museums alike, facilities which bear comparison with those of Europe. They will find an arrangement of studies, and, above all, an organization for the conduct of daily thorough bedside instruction in all branches of medicine, which leave little to be desired. It is easy to foresee, as another of the desirable results of such meetings as this held successively in various parts of America, such increased acquaintance with and confidence in our respective methods of medical education and medical treatment as will retain on our continent many of our students and many of our invalids who have been in the habit of going further to fare no better.

"A broad field opens before us for the study, with the aid of collective investigation, of the distribution and course of phthisis and rheumatism and other important diseases as influenced by race and locality. The endemic fevers, other than malarial and typhoid and yellow fever, which are said to prevail in various parts of North and South America, have long demanded systematic investigation to complete the study which the illustrious Drake began. We shall now have the opportunity of studying, equally by means of collective investigation, the relative effects of various climates on the numerous races now represented in America, and of determining more accurately the scientific and practical questions connected with our extensive series of health resorts, which embrace the finest examples of every type.

"Everyone now knows, or ought to know, that the most dreadful diseases are inseparably connected with definite organisms, that these organisms have special laws of development and distribution, that to destroy or exclude them is to avoid the disease, and that to tolerate conditions which favor their development is to encourage and invite the attack of the disease. When these simple, demonstrable propositions are considered in connection with such scourges as cholera and yellow fever, and typhus and typhoid fever, and scarlatina and diphtheria, and epidemic meningitis, it needs no further argument to prove the value and the necessity of quarantine, and of efficient medical inspection and protection. Nor does it need further argument to show the wisdom of establishing laboratories of hygiene at many points over the country, of equipping them amply with the ablest men and the finest apparatus, and of endowing them liberally, so that the search after the yet unknown causes of disease, and after the best methods to prevent the develop-

ment of such causes as are known, may be prosecuted with ceaseless vigor.

"There should be, and the day cannot be far distant when there shall be, in the cabinet of every Government here represented a secretary of public health, of rank, influence, and prerogative equal to that of any other cabinet officer.

"Here, then, is the last and greatest service to be rendered to science and to the nation by our Congress. Our combined influence will be irresistible when used in advocacy of higher education; in carrying out large plans for the scientific study of our national life, as affected by social and climatic influences; in the adoption of remedies and remedial measures of demonstrated merit, and in the insistence upon a fuller recognition of the lofty function of preventive medicine. 'Salus sanitasque Reipublicæ, suprema lex.' Let us acquire here a closer touch with each other, a deeper faith in our profession and its noble destiny, and a stronger determination to labor in brotherly coöperation for the loftiest ideals of service to science and the race."

(To be continued.)

## NEWS ITEMS.

*An Army Medical Board* will be in session at Washington City, D. C., during October, 1893, for the examination of candidates for appointment to the Medical Corps of the United States Army, to fill existing vacancies.

Persons desiring to present themselves for examination by the Board will make application to the Secretary of War, before September 15, 1893, for the necessary invitation, stating the date and place of birth, the place and State of permanent residence, the fact of American citizenship, the name of the medical college from which they were graduated, and a record of service in hospital, if any, from the authorities thereof. The application should be accompanied by certificates based on personal knowledge, from at least two physicians of repute, as to professional standing, character, and moral habits. The candidate must be between twenty-two and twenty-eight years of age, and a graduate from a regular medical college, as evidence of which, his diploma must be submitted to the Board.

Further information regarding the examinations may be obtained by addressing Dr. George M. Sternberg, Surgeon-General U. S. Army, Washington, D. C.

*The Journal of Surgery, Gynecology, and Obstetrics* is a new publication emanating from Atlanta, Ga. Dr. C. Evans Johnson is the editor, and he is supported by a strong list of collaborators. The first number bears the date of July, and contains a number of original articles, some well illustrated, besides reports of the proceedings of societies and departments for abstracts in surgery, genito-urinary and venereal diseases, gynecology, and obstetrics.

*Cholera.*—The progress of cholera continues, with but little abatement. During the week new cases have been reported from Holland, Austria, Hungary, Germany, Italy, Russia, and Belgium. The disease has also appeared in England at Grimsby, a Lincolnshire seaport, and at Hull. Numerous deaths have occurred. A fatal case has occurred in this country, in Jersey City, but no others have come under observation.